

Town Of Deloraine

BACKGROUND STUDIES

**FOR THE
DEVELOPMENT PLAN**



BACKGROUND STUDIES
FOR THE
DELORAINÉ DEVELOPMENT PLAN

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PART 1

GENERAL INTRODUCTION

Deloraine has reached a critical point in its development. The existing surveyed area of the town is more or less fully developed and occupied. The pressure for new development has created some stresses in the existing pattern of development. Evidence of this is apparent in the western portion of the community, where new residential development has occurred on land which was originally subdivided for commercial purposes. Environmental factors, particularly drainage problems, also contribute to the complexity of future development in the community.

Over the years, development in Deloraine has been virtually uncontrolled, and this has resulted in some undesirable intrusions of industrial types of development into residential neighbourhoods. Other communities in this region, such as Melita, Souris, Boissevain and Killarney, have exercised a measure of control over development through the use of municipal zoning for a number of years. The need for a planning program in Deloraine is quite obvious, in order to identify areas for future development, and to regulate the replacement of existing development in the established portion of the community.

1. THE PLANNING PROGRAM

The first phase consists of the preparation of the Background Studies. The purpose of the Background Studies is to establish an information base and to provide an analysis of the existing pattern of development in the community. This information will be used as a basis for the formation of long-range development policies in the form of a Development Plan. Some understanding of the existing community structure, population trends, and economic trends is essential before any attempt can be made to shape the course of future development. In analyzing the existing

community structure, population trends and economic trends, this document will have obvious educational benefits for the citizens and council of the community, and will assist them in making intelligent and meaningful decisions concerning future development in the community.

In addition to providing an information base, the Background Studies will highlight the various planning and development issues which will require further examination and discussion by the council, residents of the community, and provincial authorities.

The second phase consists of the preparation and adoption of a Development Plan which will identify the town's long-term development program. The Development Plan will enable council to influence the long-range development of the community, and will contain a series of objectives and policies concerning:

1. the provision of a desirable physical, social and economic environment, —
2. the orderly growth and development of the community,
3. the rational and efficient use of land,
4. optimizing the use and investment in municipal services and infrastructure, and
5. providing for the health, safety and general welfare of the citizens of the community.

The third phase consists of the preparation and adoption of a Zoning By-law. The Zoning By-law is a regulatory instrument which enables council to control the use of land and location of buildings. It forms the basis for managing day-to-day development decisions in a manner which is compatible with the long-range objectives and policies of the Development Plan.

One of the fundamental aspects of a planning program is public participation. The planning program influences the environment of the community, and thus affects the lives of its residents. Public participation in the formation and adoption of the Development Plan and Zoning By-law will therefore be encouraged.

2. LOCATION AND REGIONAL SETTING

Deloraine is located at the southern junction of P.T.H. No. 3 and P.T.H. No. 21, approximately 65 miles south-west of Brandon. The town is located in the midst of a rich agricultural area, as most of the surrounding farmland is classified as class 2 or class 3 farmland, according to the Canada Land Inventory. (This classification system ranks agricultural land on a scale of one to seven, with classes one to three being the best soils for agricultural cultivation, class four being marginal, and the remaining classifications being unsuitable for cultivation.) The wooded upland areas and lakes within Turtle Mountain Forest Reserve, approximately 15 miles south-east of the town, provide recreation areas for the town and surrounding region. Other significant communities in this region are Melita to the west, Boissevain to the east and Hartney to the north. The location and regional setting of Deloraine are illustrated on Map 1.



Town of Deloraine Development Plan LOCATION MAP 1



P A R T I I
HISTORICAL FACTORS

1. COMMUNITY HISTORY

One of the most interesting features in the history of Deloraine is the relocation of the town in 1886. "Old Deloraine" developed as a small community in Sections 19 and 30, Township 2, Range 22 in the early 1880's. It contained the first land office in the region, and was the administrative centre for over 2,700 square miles of land. The community also contained a town hall and a church, along with a number of businesses and residences. The first postmaster, Mr. James Cavers, named the community "Deloraine" after his former home in Scotland.

When the Manitoba and South Western Railway (now C.P. Rail) was extended westerly in 1886, it bypassed the townsite of "old Deloraine" by several miles. The railway surveyors laid out the nucleus of the present townsite, with its typical gridiron plan, in Sections 3 and 10, Township 3, Range 23 in the year 1886. The residents of "Old Deloraine" realized that a railway was essential for the survival and prosperity of the community, as they moved most of the existing buildings on skids across the snow to the new townsite in late 1886.

The new townsite chosen by the railway surveyors has not proven itself to be an optimum location for community development, as the town has experienced problems with soil conditions and drainage, and there has been a problem in developing a suitable water supply. Ironically, the town's present water source is a reservoir on the Turtlehead Creek in Sections 19 and 30, Township 2, Range 22, in the vicinity of the original townsite.

Deloraine was incorporated as a village in 1904, and subsequently incorporated as a town in 1907. In its new location, Deloraine has experienced a history of progressive growth and change. Over the years, Deloraine has become an important focus for the shipment of agricultural produce and the distribution of agricultural supplies and services. Other factors, such as the consolidation of the school system into the town, have served to enhance the educational, social and recreational role of the community.

The book titled Deloraine Scans a Century 1880-1980 is an excellent account of the history of Deloraine, and describes the progressive development of the community in much more detail than can be accommodated in this document.

While the preceding commentary indicates a history of progress, there have been problems and setbacks in Deloraine's history. As with other communities, fires have played a role in community change. The most serious fire occurred in 1898 when a major portion of one business block was destroyed. Other subsequent fires have resulted in the destruction of grain elevators, stores, houses and other structures. In most cases, these structures have been replaced, but not necessarily in the same location. One of the most notable examples is the relocation of a large grain elevator west of the town, after the former elevator in the centre of the community was destroyed by fire in 1974. Fires have thus been factors contributing to change in the arrangement and location of buildings in the community.

Other problems in the community's history have been water supply problems and flooding problems. The water supply problem has been a problem of quality, as most of the groundwater was found to be too salty. With the construction of a reservoir on the Turtlehead Creek in 1963, these problems were overcome. In 1979, four homes were flooded, and a temporary dam was hastily

erected to protect the hospital from flooding. The flooding problem has not yet been rectified, and may become more severe if further clearing and agricultural drainage improvements occur in the watershed of Medora Creek.

2. HERITAGE RESOURCES

Some of the history of a community is evident in its artifacts and buildings. While there has been no formal study by the provincial Department of Cultural Affairs and Historical Resources to determine the existence of archaeological or architectural features of historic significance in Deloraine, there appears to be several buildings worthy of preservation due to their architectural and historic significance. For example, the former Presbyterian church is a fine example of construction with local fieldstone. There are also several brick buildings in the commercial area, the bank building, the newspaper building, and the jewelry store, which are excellent examples of brick construction from the earlier part of the community's history. These buildings exhibit fine detailing and craftsmanship; qualities which are not usually evident in modern buildings. Often such buildings are callously destroyed or "modernized" with an overlay of newer materials. In the formulation of policies for the Development Plan, it is recommended that some consideration be given to a policy encouraging the preservation of any features of historical, archaeological, or architectural significance in the community. Otherwise such features may be irreversibly changed or destroyed.

P A R T III
NATURAL FEATURES

1. GEOLOGY AND SOILS

Deloraine is situated on a flat plain at the north base of Turtle Mountain. The underlying bedrock is classified as the Riding Mountain Formation. The upper portion of this bedrock consists of hard grey shale. Overlaying this is a glacial silty clay till deposit which is approximately 100 feet thick, and contains some boulders and lenses of sand and gravel. The glacial till is moist with a stiff to very stiff consistency. The glacial deposits are covered with discontinuous lacustrine deposits of silt and organic clay which vary in thickness from 1 to 8 feet. These lacustrine deposits are generally moist to wet with a soft to firm consistency. The topography of the town is essentially flat, with only several feet of variation in vertical elevation throughout the community.

The report titled Soils of the Boissevain - Melita Area contains a detailed classification and analysis of the soils in this area. Although the soil classifications are primarily for agricultural purposes, the report does contain some observations about capability for urban development. Most of the soils in the Deloraine area are considered to be good agricultural soils, but are only fair for urban development, primarily as a result of a high water table and adverse drainage characteristics which affect bearing capacity, shear strength, and susceptibility to frost heave.

2. SURFACE DRAINAGE

Two branches of the Medora Creek flow northerly from the Turtle Mountain area around the east and west sides of the town. This drainage configuration is illustrated on Appendix A. On occasion, rapid snowmelt and spring runoff in the Turtle Mountain

area have caused these creeks to overflow their banks, resulting in local flooding problems. These problems are most pronounced in the western portion of the community, where a channelized segment of the creek penetrates the town along a railway line. In 1979, four houses were flooded and Deloraine Memorial Hospital was threatened to the point where a temporary sand dam was hastily installed to protect it. The road allowance along the eastern boundary of the town provides some measure of protection from flooding by the eastern branch of Medora Creek. The 1979 flooded areas are illustrated on Appendix B.

A comprehensive study of several alternatives to improve the flood protection at Deloraine was undertaken by the Water Resources Branch in 1981. This study recommended three alternative proposals for drainage improvements, with a cost range in 1981 of \$867,000 to \$1,086,000. These three alternatives are illustrated on Appendix C. These costs are considered to be too expensive for the community at this time, and other alternatives may have to be explored.____

3. GROUNDWATER

Water which exists in the fractured shale aquifers in the bedrock underlying the town is salty and under artesian pressure. The thick layer of glacial till which overlays the bedrock prevents this saltwater from migrating upward and contaminating surface water and topsoil.

Other groundwater exists in the porous components of the upper soil zones. The water table, which is considered to be the upper surface of this groundwater, generally fluctuates throughout the year. The water table is generally at its highest level during the spring, after the snow has melted. In Deloraine, the water table is considered to be generally high, and it can cause problems in excavations for utilities and foundations.

4. IMPLICATIONS FOR FUTURE URBAN DEVELOPMENT

The most severe limitation for future urban development is the flooding problem. The east branch of Medora Creek (Deloraine Drain East) occasionally floods all of the potential easterly expansion areas in the South-West Quarter of Section 11-3-23 and in the North-West Quarter of Section 2-3-23. The government road allowance along the east side of town acts as a dyke and provides a large measure of protection for the existing development inside the town limits. Any expansion of the town to the east of this road allowance would require totally new flood protection measures. Such measures are not economically feasible, and this rules out any major urban growth in an easterly direction. (There are also other factors which rule out major expansion in these areas, primarily the presence of the town's sewage lagoons and garbage disposal site, which would be considered as being incompatible with future development.) The 1981 report of the Water Resources Branch and the town's engineering consultant have recommended that this road allowance be raised to provide a better level of flood protection for the eastern portion of the town. The cost of this project was estimated to be \$100,000.00 in 1981.

The west branch of Medora Creek (Deloraine Drain West) occasionally creates flooding problems in potential development areas in the western portion of the community. Improvements in the drainage system would provide a greater measure of flood protection and make this portion of the community more suitable for development. As an alternative to the expensive proposals of the Water Resources Branch, the town's engineering consultant has outlined another alternative which would appear to be considerably less expensive. This alternative involves improvements to the east ditch of P.T.H. No. 21, adjacent to the North-West Quarter of Section 3-3-23, together with two railway bridges and one highway bridge. The engineering consultant has recommended that the town, through the Turtle Mountain Water Conservation District,

request the Water Resources Branch to evaluate this proposal to determine if it will provide an acceptable measure of flood protection. Once adequate flood protection measures have been taken, large areas in the western portion of the community will become more suitable for development.

With regard to internal drainage, surveys of potential development areas indicate that providing adequate drainage facilities may be difficult, primarily because these areas do not slope in one direction. The engineering consultant has indicated that drainage facilities in these areas could be provided to the same standard as existing drainage facilities in developed areas. The consultant has recommended that in future subdivisions, the developer should retain an engineer to properly design an adequate surface drainage system for the subdivision itself, and also to accommodate adjacent future development.

With regard to subsoil drainage, some seepage problems may be encountered in excavation operations for foundations or utilities, especially during periods when the water table is high. The engineering consultant has recommended that all shallow footings below grade, including footings for houses with basements, should be provided with a weeping tile drainage system connected to a proper discharge. Due to the sulphate action of the soils, sulphate resistant cement should be used in all concrete in contact with the soil.

In most cases, shallow foundations for single storey buildings will be located in stiff glacial till, which should provide adequate bearing capacity for properly designed footings. In those areas where glacial till does not exist at the desired foundation depth, consideration should be given to placing the structure on piles extending into the till, or on footings designed to compensate for the poorer soil conditions.

The naturally occurring deposits of organic clay and silt also pose significant problems of strength and stability for road construction. Therefore any pavement designs should account for these problems. The engineering consultant has recommended that a soils investigation be carried out before a major paving project is undertaken.

In order to prevent the migration of saltwater from the bedrock aquifers to the surface and the resultant contamination of topsoil and surface water, special precautions should be taken to properly seal any test holes that are bored and any deep wells that are abandoned.

P A R T I V

SOCIO-ECONOMIC CHARACTERISTICS

In order to anticipate and plan for future development in a community, it is essential to have an understanding of current socio-economic trends, as well as the underlying forces which influence these trends. Such an understanding enables reasonable projections to be made into the future. The intent of this part is to examine current socio-economic trends, and to make some modest predictions for the future.

At this point it must be emphasized that projecting future growth trends involves a considerable amount of uncertainty. Unforeseen changes in macroeconomic conditions, personal lifestyle preferences, improvements in medical science, and government policies are some of the factors which exert significant influence on future growth. As in all projections, certain assumptions must be made, and the accuracy of the projections is quite dependent on the validity of the assumptions.

1. POPULATION CHARACTERISTICS

In order to anticipate future development trends in Deloraine, the population trends in the surrounding rural area must also be taken into consideration, as the rural population has a significant impact on activities in the town. For the purposes of this part, population data from the Rural Municipalities of Brenda and Winchester has been taken into consideration. Major portions of these municipalities may be considered as being within Deloraine's trading area. The entire area of both rural municipalities has been considered, as census data is not readily available for smaller units. However, it is understood that the population in the outlying portions of these municipalities may also direct their activities to other communities, such as Waskada and Melita.

(1) POPULATION CHANGE

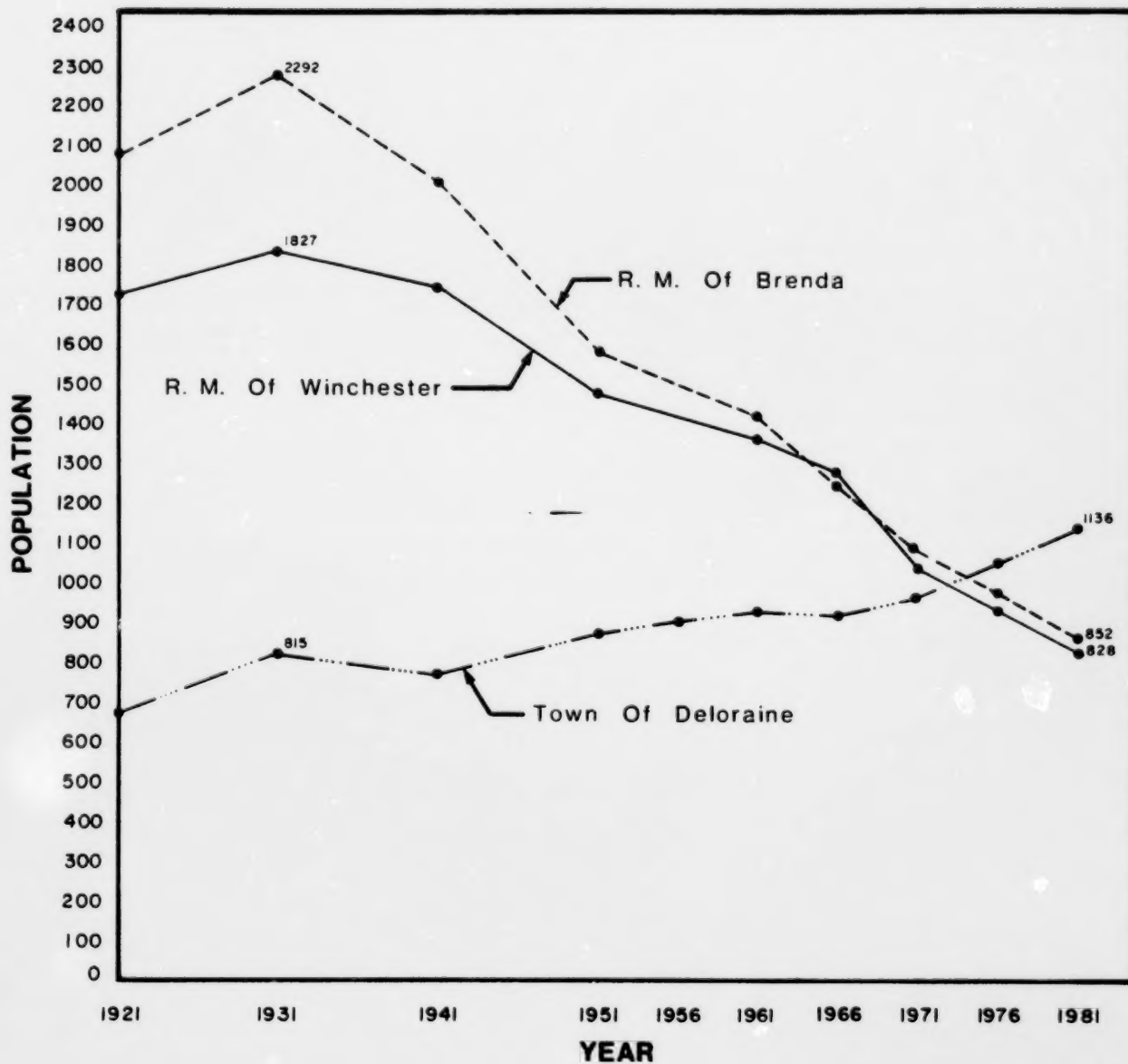
Figure 1 illustrates the population change in this area from 1921 to 1981. Several observations can be made from this data. Firstly, a similar decline in the population of the two rural municipalities is clearly evident. A substantial portion of this decline has occurred since World War II. This decline is characteristic of most rural areas in Manitoba during this time period. Some of the major factors which have contributed to this trend are as follows:

- (a) Increased farm mechanization permits an individual farmer to utilize a larger area of land.
- (b) The size of farm families has decreased, partly because farmers no longer require a large family for farm labour.
- (c) Many rural residents have moved to urban areas in search of higher education and/or specialized employment opportunities.

Figure I also indicates the growth trend of the Town of Deloraine. The town's population increased by 30 percent during the period 1951 to 1981. Although the average rate of growth was 1% per year over this 30 year period, most of this growth occurred during the last half of the period. Deloraine's recent growth trend has been further analyzed in Table IV-1. Table IV-2 illustrates a comparison between the growth of Deloraine and other communities in the region.

Table IV-2 illustrates the decline of the communities of Waskada, Napinka and Hartney. It is anticipated that Deloraine may continue to experience modest growth, partly as a result of the continuing decline of these neighbouring communities.

Figure 1
POPULATION CHANGE



SOURCE: Statistics Canada Census Data

TABLE IV-1
POPULATION CHANGE IN DELORAINE

PERIOD	POPULATION		RATE OF GROWTH OVER PERIOD (%)	AVERAGE ANNUAL RATE OF GROWTH (%)
	AT END OF PERIOD	CHANGE		
1951	874	-	-	-
1951-1956	900	26	2.97	0.59
1956-1961	916	16	1.78	0.36
1961-1966	910	-6	-0.66	-0.13
1966-1971	961	51	5.60	1.12
1971-1976	1,019	58	6.03	1.21
1976-1981	1,136	117	11.48	2.30
1951-1981	1,136	262	29.98	1.00

SOURCE: Statistics Canada Census Data

TABLE IV-2
COMPARATIVE POPULATION CHANGES

COMMUNITY	POPULATION			RATE OF CHANGE (%)	
	1951	1981	CHANGE	OVER 30 YEARS	PER YEAR
Deloraine	874	1,136	262	29.98	1.00
Melita	781	1,156	375	48.02	1.60
Waskada	395	239	-156	-39.49	-1.32
Napinka	222	132	-90	-40.54	-1.35
Hartney	538	490	-48	-8.92	-0.30
Souris	1,584	1,731	147	9.28	0.31
Boissevain	1,015	1,660	645	63.55	2.12
Brandon	20,598	36,343	15,745	76.44	2.55

SOURCE: Statistics Canada Census Data

(2) AGE DISTRIBUTION

An analysis of the population age distribution provides an insight into the changes that have occurred in the age distribution. This enables some inferences to be made concerning the provision of various facilities and services in the community. Table IV-3 and Figure 2 provide such an analysis for the period 1951 to 1981.

TABLE IV-3
CHANGES IN AGE DISTRIBUTION 1951 TO 1981

AGE GROUP	AREA POPULATION (a)			TOWN OF DELORAINE POPULATION		
	1951	1981	CHANGE	1951	1981	CHANGE
0-4	479	195	-284	74	45	-29
5-14	693	445	-248	130	135	5
15-24	573	475	-98	104	140	36
25-34	579	360	-219	94	105	11
35-44	530	280	-250	117	95	-22
45-54	397	315	-82	98	105	7
55-64	314	315	1	109	160	51
65+	376	455	79	148	340	192
TOTALS (b)	3941	2816	-1125	874	1136	262

(a) Area Population is total for Town of Deloraine, R.M. of Brenda and R.M. of Winchester.

(b) Minor discrepancies may appear in totals due to rounding of data by Statistics Canada.

Source: Statistics Canada Census Data

Figure 2
POPULATION DISTRIBUTION

LEGEND

- R M Of Brenda, R M Of Winchester, Town Of Deloraine
- Town Of Deloraine

SOURCE: Statistics Canada Census Data

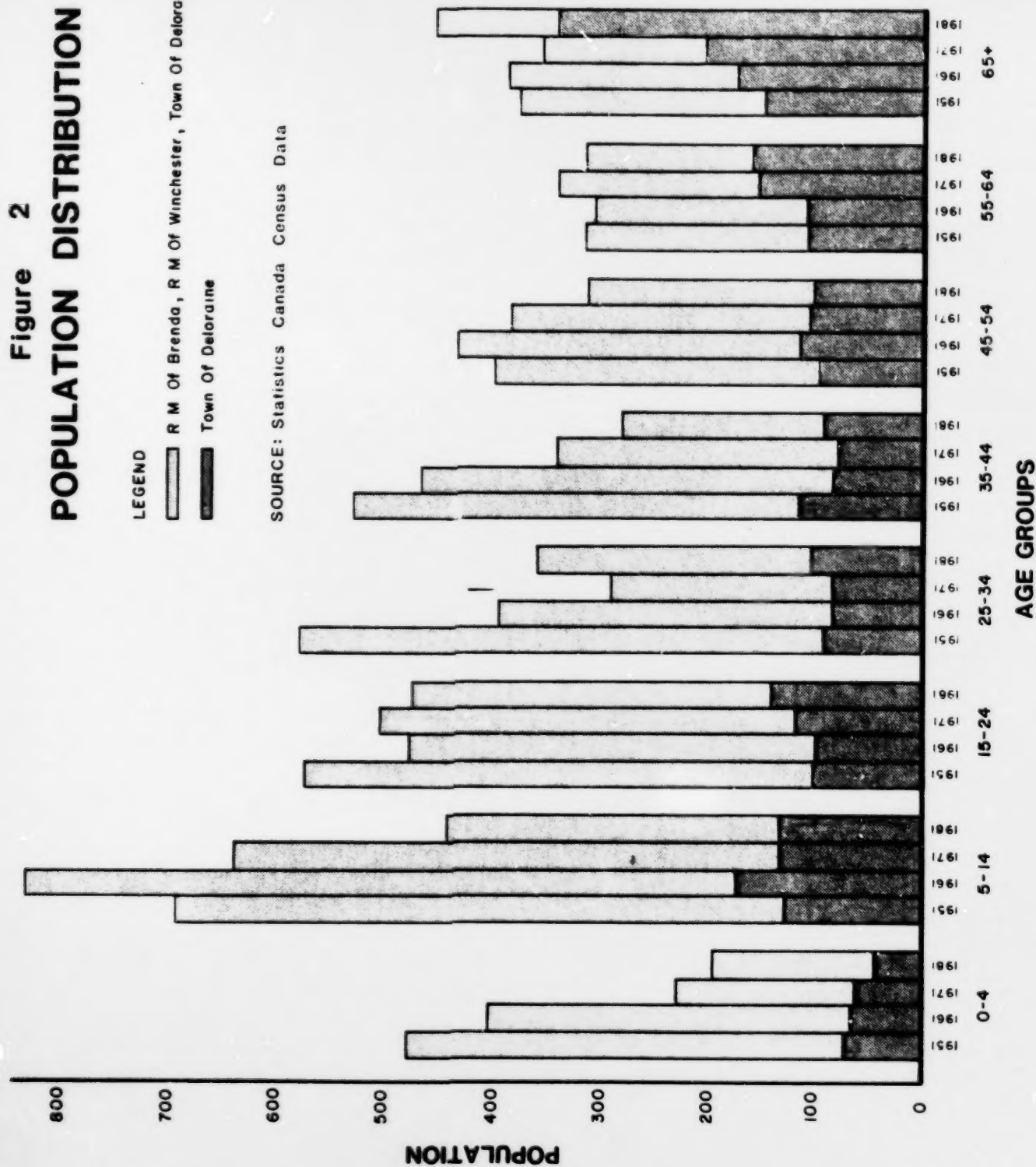


Table IV-3 indicates that approximately 3/4 of the town's growth is in the senior citizens age group, and a further 20 percent is in the 55 to 64 age group. Clearly the population of the community is aging, to the point where 30 percent of the town's current residents are senior citizens. There has also been some modest growth in the young adult age group (15 to 24), but this has been offset by declines in other groups.

(3) POPULATION DYNAMICS

The two factors which influence population change are natural increase and migration. Natural increase is calculated by adding the number of births and subtracting the number of deaths for a given population over a given period of time. Changes resulting from migration are calculated by adding the number of people who move into an area and subtracting the number who move out of an area. Unfortunately, in the case of Deloraine, there is a lack of data to assist in the analysis of any long-term trends. Data for such calculations is only available for the years 1975 to 1981 (both inclusive) from provincial sources.

Nonetheless, a brief examination of this data yields some information concerning recent population changes. Over this period, the combined number of births for the town and the 2 rural municipalities was 278 and the combined number of deaths was 185. While this would tend to indicate a net natural increase in the area, other data indicates that the total population declined during this period. This could be attributed to two factors; firstly, a net movement of some people out of the area, and secondly, some of the local residents dying in other areas, such as in Brandon or Winnipeg hospitals.

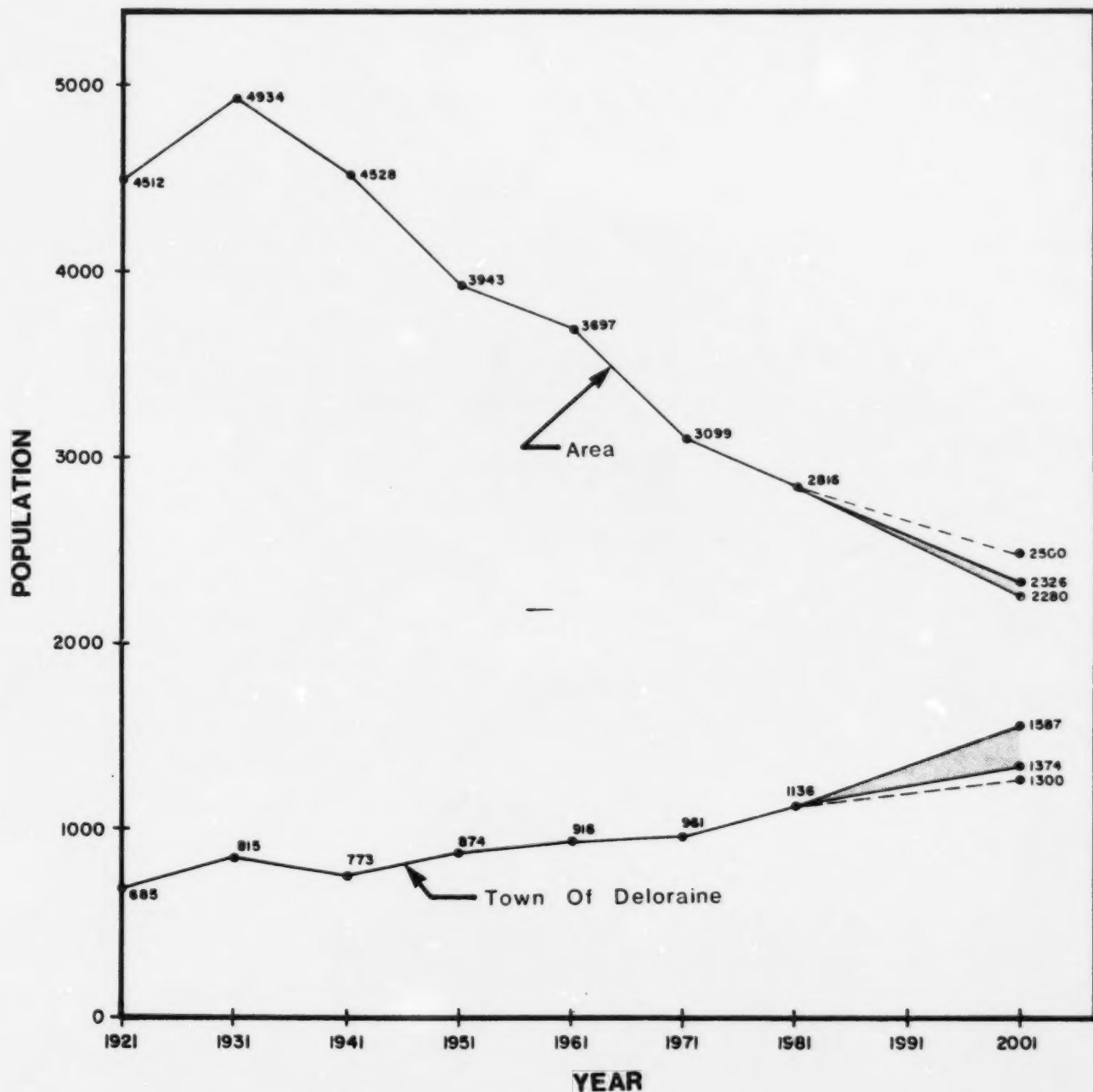
(4) POPULATION PROJECTIONS

Population projections involve a number of uncertainties and are to some extent based on an extension of recent past trends. Unfortunately, some of the recent trends for the Deloraine area cannot be thoroughly examined, due to the limited data, particularly concerning birth rates, death rates and migration. In addition, unforeseen economic conditions, cultural conditions (such as lifestyle preferences) and medical advances may influence population projections in unexpected ways. Therefore, one must approach the subject with some caution. In spite of the limitations of the data, the following discussion attempts to make some modest predictions regarding the future population to the year 2001.

Figure 3 illustrates several population projections. The area population is considered to be a composite of the populations of Deloraine and the Rural Municipalities of Brenda and Winchester. The projection ranges determined by the mathematical methods are determined by using the average rate of growth for the ten year 1971 to 1981 period and for the thirty year 1951 to 1981 period and extending the population graphs using these rates of change. If recent trends continue unabated, and if other factors remain unchanged, one would expect the 2001 population to be within the range shown on these projections.

However, in considering other factors, it would seem that the rate of decline of the area population may not be as pronounced as the mathematical computations would suggest. Figure 2 indicates that the aggregate birth rate for the area has been more stable in the 1971 to 1981 period than in any other period since 1951. Furthermore the average household size seems to be reaching a relatively low level (2.3 in Deloraine, 3.0 in Brenda and 3.6 in Winchester in 1981). These two considerations will probably moderate the rate of total population decrease. While some declines are anticipated due to the increasing expansion of farm

FIGURE 3 POPULATION PROJECTION



LEGEND:

- Mathematically projected population range based on average rates for 1971-1981 and 1991-2001.
- Anticipated population.

NOTE: AREA- Is total population of Town of Deloraine, R.M. of Brenda and R.M. of Winchester.

SOURCE: Statistics Canada Census Data.

sizes, the overall declines are not expected to be as dramatic as in the past. Considering these factors, the total area population is expected to be approximately 2,500 by the year 2001. It is expected that the population of each rural municipality will decline from the 1981 level of 850 persons per municipality to approximately 600 persons per municipality in 2001.

As in the recent past, a major component of the town's growth is expected to be retiring farmers. If one computes the total number of people in the area presently over the age of 45, and accounts for the reductions based on the continuation of the current death rate, this would give some indication of the senior citizen population in the area by 2001. As a result of these computations, the total senior citizen population in the area is expected to be approximately 550 to 600 people. If current ratios prevail, approximately 70 percent of this number will choose to live in Deloraine. This would suggest a range of 385 to 420 senior citizens living in Deloraine, a significant increase of over the 1981 number of 340. The actual increase of the number of senior citizens in town may even be greater than this, due to the continuing decline of smaller communities in the area, and the attraction of Deloraine's modern health care facilities. Other components of the town's population are also expected to increase, but at a more modest rate than the senior citizens group. Considering these factors, the anticipated population for Deloraine in the year 2001 is approximately 1300 persons.

In addition to projecting the overall trend, it may also be useful to project the trend for some of the components.

- (a) Senior Citizens - According to Figure 2, the two "pre-seniors" age groups are quite uniform. It would therefore seem that the rate of advancement into the senior citizens category would be relatively constant over the 1981-2001 period. As discussed above, the increase in the number of senior citizens is expected to be a major component of the town's future growth.

- (b) Working Age Groups (25 to 64) - With the general decline in the rural area's population, it is anticipated that there will also be a decline in the area's working age groups, although this may not occur to the same extent as previously experienced. In contrast, the working age groups in the town have increased over the past 30 years, and it is expected that this trend will continue, as the general population of the community is expected to increase.
- (c) Youths (0 to 25) - During the 1951 to 1981 period, there were dramatic fluctuations in the numbers of youths in the area, as can be seen in Figure 2. This illustrates the effects of the post-war baby boom. Although there have recently been dramatic declines in the number of children in the area, there is some indication that the numbers are becoming relatively more stable (particularly in the 0-4 group). Some continuing decline in the youth group may be expected in the rural area as a result of the continuing trend of rural depopulation, but the declines are not expected to be as dramatic as previously experienced.

(5) IMPLICATIONS FOR FUTURE URBAN DEVELOPMENT

- (a) Residential - The most significant urban requirement of a population is for residential accommodation. The preceding projections suggest that the working age group in Deloraine will experience some modest increases and that the seniors age group will experience some significant increases. A substantial portion of the future housing demand will therefore be accommodations for senior citizens. Thus, in addition to single family dwellings, there will also be a demand for multiple family dwellings for senior citizens.
- (b) Institutional - The projected increases in the seniors group will place additional demands on health care facilities. There is a definite possibility that expanded facilities and

additional staff will be required to accommodate this demand.

The decline in the number of children, particularly in the rural area, indicates that there will probably be some surplus capacity in the school system.

- (c) Commercial and Industrial - With the continuing reduction of the population in the rural area, there will probably be a reduction in demand for commercial goods and services, particularly those which are oriented towards a "people demand", such as food and clothing. Those goods and services which are oriented to a "land demand", such as farm fuels and fertilizers, may be expected to remain stable or to increase. There are, however, several factors which may affect this trend:

- i) Deloraine's trading area is expected to increase, as communities to the west and north continue to decline.
- ii) The increase in the number of senior citizens represents a less mobile and more loyal shopping group, a group that will be more inclined to shop close to home, rather than travelling to major centres.

- (d) Parks and Recreation - With the declines in the youth and rural population, there should be adequate or surplus capacity in most facilities. With the projected increase in the number of seniors, more attention should be focussed on their recreational needs.

2. EMPLOYMENT CHARACTERISTICS

Table VI-4 provides an indication of the employment in Deloraine during the years 1971 and 1981. Unfortunately earlier data is not available, and it is therefore impossible to analyze the long-term trends.

TABLE IV - 4
EMPLOYMENT IN DELORAINÉ

OCCUPATIONAL CATEGORY	1971			1981		
	Male	Female	Total	Male	Female	Total
Managerial, Admin. and Related	10	5	15	60	15	75
Teaching & Related	10	25	35	5	30	35
Medicine & Health Care	0	20	20	15	30	45
Technological, Social, Religious & Related	5	5	10	0	5	5
Clerical & Related	10	20	30	10	40	50
Sales	35	10	45	25	20	45
Service	25	30	55	10	35	45
Primary (eg. Agriculture)	15	0	15	10	0	10
Processing	0	0	0	10	0	10
Machining, Fabricating, Assembly, Repair	20	5	25	30	0	30
Construction Trades	30	0	30	35	0	35
Transportation	15	0	15	5	0	5
Other	25	0	25	20	0	20
Not Stated	30	30	60	-	-	-
TOTALS	230	150	380	235	175	410

NOTE: Numbers are rounded to nearest 5 by Statistics Canada.

SOURCE: Statistics Canada Census Data

It is noted that the total employment has increased by 7.9 percent over the 10 year period. The male employment has remained quite stable. Most of the increase has occurred in female employment.

In addition to examining the total employment, it is also useful to examine changes in the distribution of jobs. Significant increases have occurred in the categories of managerial/administration, medicine and health care, and clerical. Other categories have remained stable, or experienced minor increases or decreases. The increases in the managerial/administration sector seem to be an aberration. While one might expect some redistribution of jobs into this category, the increases illustrated do not seem explainable other than as a result of a change in the Statistics Canada method of classification, especially when the last line of the list of occupations is examined. The increases in medicine and health care, for the most part, correspond to the aging population in the community and reflect the staffing of the recently constructed senior citizens housing.

3. INCOME CHARACTERISTICS

Information on family income is important for two reasons. Firstly, a certain percentage of this income will be disposable income, which is an indication of the amount of purchasing power for local goods and services. Secondly, local taxes will consume a portion of this income in order to provide operating capital for the various municipal and school expenditures. This will not only affect the municipality's ability to maintain existing facilities and services, but more significantly, will affect the municipality's ability to undertake additional projects.

Table IV-5 illustrates the average annual household income for the Town of Deloraine, the R.M. of Brenda and the R.M. of Winchester during the period 1971 to 1981. The third last column of the table is a conversion of the actual 1981 incomes into 1971 dollars, by using the consumer price index (for Winnipeg) as a

divisor. This enables comparisons to be made in terms of constant 1971 dollars. This table clearly indicates major increases in real income in the Town of Deloraine and the R.M. of Brenda, with only a minor increase in the R.M. of Winchester.

TABLE IV-5
AVERAGE ANNUAL HOUSEHOLD INCOME

MUNICIPALITY	1971 \$	1981		INCREASE IN CON- STANT \$	CHANGE %
		ACTUAL \$	CONVERTED TO 1971 \$		
Town of Deloraine	6,019	17,174	7,073	1,054	17.5
R.M. of Brenda	5,169	19,822	8,164	2,995	57.9
R.M. of Winchester	7,135	17,709	7,294	159	2.2

SOURCE: Statistics Canada Census Data
C.P.I. Divisor = 2.428

4. DELORAINES ECONOMY

While this discussion is not intended to take the place of a detailed economic base study, it will provide some insight into the characteristics and dynamics of Deloraine's economy. Several inferences have already been made in the preceding sections describing population, employment and income characteristics.

(1) GENERAL CONSIDERATIONS

The economy of an area can be classified into several components, primary, secondary and tertiary activities. Primary activities describe those enterprises involved with the exploitation of natural resources, such as agriculture, forestry, mining or commercial fishing. Secondary activities

are those activities involving manufacturing or construction. Tertiary activities are those service activities which complement and support the primary and secondary activities. In Deloraine, most non-agricultural and non-construction occupations would be considered as tertiary activities.

The economy of the rural area surrounding Deloraine would be classified as primary, due to the predominance of agriculture, and the economy of the town would be classified as a tertiary service economy. The secondary activity, manufacturing and construction, is usually a small component in communities such as Deloraine.

(2) PRIMARY ACTIVITY

One indication of the significance of agriculture to the town's economy is the value of the sales of farm produce. According to 1981 census data, the total sales of farm produce from the R.M. of Brenda and R.M. of Winchester exceeded twenty million dollars. Due to its location, Deloraine was probably the shipping point for most of the sales from the R.M. of Winchester, as well as a portion of the R.M. of Brenda. As it is the largest community in this area, it would also seem that a significant portion of this revenue was circulated into the town's economy.

Another indication of the significance of agriculture in this area is the employment statistics. In 1981, the R.M. of Brenda and the R.M. of Winchester had a combined total of 460 males employed in agriculture. The total male employment in all sectors in Deloraine in 1981 was 235. This suggests approximately twice as many males employed in agriculture as in all other activities.

Clearly, the economic well-being of a community such as Deloraine is very directly linked to the economy of the surrounding rural area. The continued growth and prosperity of the town in the future will be largely dependent upon a healthy rural economy.

Another primary activity which may become significant in this area in the future is the development of oil and gas resources. In recent years, the Waskada area has experienced this type of development. It is not unreasonable to assume that exploration and development may extend north-easterly into the Deloraine area. This would definitely be beneficial to the local economy, due to the economic spin-offs generated by such activities.

(3) SECONDARY ACTIVITY

Activity in this sector is traditionally low in most rural communities, and primarily consists of the local construction trades. The 1981 census data indicates that 35 persons were employed in construction in Deloraine. As indicated in Part V, there has been a noticeable decline in the average number of annual housing starts since the 1970's, which indicates a decline in construction activity. Other types of construction vary significantly from year to year depending on the demand for major projects.

At the present time, there is no major manufacturing activity in Deloraine. Some of the factors which a manufacturing enterprise takes into consideration before locating in communities such as Deloraine are:

- availability of an inexpensive serviced site
- availability of an inexpensive labour force
- good transportation linkages with markets and sources of supply.

- attractiveness and orderliness of the community.

If Deloraine wishes to attract such industries, some consideration should be given to the establishment of several serviced industrial sites at a suitable location in the community. This would give Deloraine an equal opportunity, if not an advantage over other communities in the region, in terms of availability of land to attract industrial development.

In observing the experiences of other communities in rural Manitoba, the best prospects for developing any sustained long-term manufacturing activity would be the initiation and development of a new enterprise by one or more local tradesmen or craftsmen.

(4) TERTIARY ACTIVITY

In examining Table IV-4, it is apparent that a major portion of the town's employment is in tertiary activities. As previously noted, the town's employment has increased during the 1971-1981 period. The community reports published by the Manitoba Department of Economic Development and Tourism provide an indication of the diversification of business in the community. A study of the past 15 annual reports indicates a period of modest increase in a number of sectors, such as apparel, food and beverage, furniture and appliances, finance and several specialty sectors such as fertilizer and sporting goods sales. A number of other sectors have remained constant, and several have decreased, particularly the number of automobile and farm implement sales establishments.

(5) IMPLICATIONS FOR FUTURE DEVELOPMENT

As previously noted, the condition of the town's economy in the future will be quite dependent on the rural economy. The

trend of rural population decline is a concern, in that it represents a loss in the total number of consumers in the area. The effects of such losses will be partially offset by the following factors:

- An increase in the size of Deloraine's trading area, particularly to the north and west, as other communities decline. (Expansion of the trading area to the south and east does not seem likely, due to the location of the international border and the competitive influence of the Town of Boissevain).
- Increased average family income
- Increased fuel prices may discourage travel and shopping in other centres, particularly Brandon.
- The number of health care employees and senior citizens is expected to increase. This will represent an increase in the amount of stable and predictable income.

P A R T V
EXISTING LAND USE PATTERN

1. OVERVIEW

The intent of this part is to identify the quantity and location of the various types of land use in the community, and to indicate any problems or concerns that exist.

The total amount of land inside the town limits has been estimated to be 569 acres. Of this, approximately 334 acres have been developed for urban use, with the remainder either being undeveloped, or in agricultural use. Table V-I indicates the approximate acreages of land used for various purposes inside the town limits. The land which is classified as "other" in this table consists of various remnants of undeveloped land within the community. Much of this land is located in the south-west sector of the community, and consists of the undeveloped area east of Mather Street, and two large irregularly shaped parcels created by the railways.

TABLE V-I
AREAS OF EXISTING LAND USES

USE	ACRES	% OF TOTAL	% OF BUILT UP AREA
RESIDENTIAL	119	20.9	35.6
COMMERCIAL	20	3.5	6.0
INDUSTRIAL	16	2.8	4.8
INSTITUTIONAL	24	4.2	7.2
PARK & RECREATIONAL	54	9.5	16.2
STREETS & LANES	77	13.5	23.1
RAILWAY	24	4.2	7.2
AGRICULTURAL	192	33.7	-
OTHER	43	7.6	-
TOTAL	569	100	100

SOURCE: Municipal Planning Branch land use survey, 1983.

Town of Deloraine

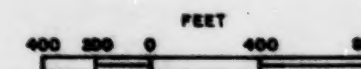
BACKGROUND STUDIES

EXISTING
LAND USE

LEGEND:

- SINGLE FAMILY DWELLING
- TWO FAMILY DWELLING
- MULTIPLE FAMILY DWELLING (no. of units shown)
- MOBILE HOME
- ▬ COMMERCIAL WITH DWELLING(S) ABOVE
- ▬ COMMERCIAL, STORAGE OR BUILDING (as described)
- SS SERVICE STATION
- V VACANT STRUCTURE
- ✕ CHURCH
- ⋮ BULK STORAGE TANKS OR BINS
- ⊕ WATER OR OTHER TOWER
- RES. FARM RESIDENCE
- ⌂ FARM RELATED BUILDING
- LIMITS OF THE LAND USE AREA

NOTE: LAND USE COMPILED NOVEMBER 3, 1963.



Manitoba
Municipal Affairs
Municipal Planning



DATE MARCH / 1966

DRAWING NO. 415-70-104

REVISED

DRAWING NO.

The general distribution of development is shown on Map 2. In examining this map, several observations can be made.

Historically the railway has been the major determinant of land use distribution, with most commercial and industrial development being centralized either within or adjacent to the station grounds. As the railway has diminished in significance, newer commercial and industrial development has tended to decentralize along major streets and the highways, particularly in the peripheral portion of the community. In fact, the scattered development of various commercial or industrial uses outside the boundaries of the community, commonly known as "fringe development", presents some unique problems which will be further discussed in Section 8.

It is also noted that the built up area of the town abuts the town boundaries on the east and south sides. In fact, some development has spread beyond these boundaries, which also contributes to the "fringe development" concerns.

Within the present town boundaries, major areas for expansion exist in the south-west, north-west and north-east sectors. As noted in other parts of this study, each of these areas has certain limitations for development.

2. RESIDENTIAL

(1) GENERAL CONSIDERATIONS

The pattern of residential development in a community is usually a result of 2 factors. The first factor is the outward expansion from a developed area into an undeveloped area. This is the most commonly perceived form of growth, as it usually results in the transformation of agricultural land into a totally new residential area. Such areas cannot be developed without some significant costs and occasional

difficulties, particularly in terms of providing streets, sewers, watermains, drainage facilities, hydro and telephone service. These new areas also tend to be remote from certain community facilities, particularly the central shopping area, and occasionally from major complexes such as schools or recreational facilities which may be located on a large site on the opposite side of the community.

The second factor of residential development is the replacement of older houses and "infilling" in the established residential areas. "Infilling" is a process by which one or two large lots are replaced by a number of smaller lots. This process is not as commonly perceived as new expansion, but it can significantly add to the number of housing units in a community. Infilling occurs along established streets and services. Since no major service installations are required, infilling is a very economical form of development, as it makes more efficient use of existing services. In addition, infilling situations, in some cases, may occur in close proximity to established community facilities and shopping areas.

(2) DEVELOPMENT TRENDS

The major direction of residential expansion in Deloraine has been to the south, particularly south of Renton Avenue. Minor residential expansion has occurred in other directions, but not to the same extent as to the south. The town has experienced some difficulty in selling some of the most southerly lots in the community, as some potential buyers have considered them to be beyond a comfortable walking distance of the downtown area.

The process of infilling and replacement of older housing seems to have been occurring on a more or less continual basis. However, most of the existing residential lots on the periphery of the community have been recently developed, which has resulted in an increased trend of infilling in the past few years. In addition, other areas have also experienced residential development. Several new houses have been built on large commercial lots adjacent to P.T.H. No. 21 in the western portion of the community. Also, several new houses have been built immediately south of the C.P. Rail trackage in the centre of the community.

An examination of building permits indicates that the 1970's were active years for the construction industry in Deloraine, with the average rate of new residential construction being approximately 15 houses per year. However, this rate of growth has not been sustained, and new house construction has declined to an average rate of 8 homes per year in the early 1980's.

(3) SINGLE FAMILY DWELLINGS

The most prevalent form of residential development in Deloraine is the single family dwelling. According to a 1983 land use survey, there were approximately 420 single family dwellings in the community. These constitute 82 percent of the community's housing supply, and occupy 107 acres of the existing residential area. The average size of a residential lot is approximately 0.25 acres, which translates into a lot measuring 83 ft. by 130 ft.

According to the 1981 census, 155 of these dwellings were constructed prior to 1946. This indicates that approximately two thirds of the single family dwellings in the community are less than 35 years old, and probably in relatively good condition. The other third is older

housing, some of which may not be in good condition and may be replaced by new construction in the near future.

Approximately 72 percent of the existing single family dwellings are located south of the railway, and 27 percent are located north of the railway. The remaining few houses are scattered in the northern and western peripheral areas of the community.

The area south of the railway is a very homogeneous residential area. The only feature which divides the area is Broadway, the major southern access to the community, and this is not perceived to be a serious problem. Various non-residential uses, such as the hospital, commercial area, industrial areas (bulk oil tanks, sand and gravel contractor) and the schools are located at the periphery of this residential area. This area seems to have most of the desirable characteristics of a pleasant residential area, such as housing which is in good condition, and close proximity to schools and the hospital. The only factors that might be termed as disadvantages to the area are firstly, the scattered industrial developments on the periphery, which may present some localized problems with noise, dust or odours, and secondly, the lack of paved surfaces on some of the streets. The southern extremity is also somewhat remote from the downtown area.

In contrast, the residential area on the north side of the railway is not as homogeneous. The commercial development along Broadway divides the northern residential area into two smaller areas. In the north-east sector in particular, the residential development is quite fragmented by commercial and recreational development. The presence of features such as lumber storage and farm equipment storage makes this area less aesthetically appealing as a residential area. The north-west sector appears to be more cohesive and attractive

than than the north-east sector. While this area appears to be a reasonably attractive residential area, one of the detrimental factors is the location of the truck terminal, which generates truck traffic along residential streets.

The residential areas north of the railway are over 1/2 mile from the elementary school, which may be a concern for families with young children. On the other hand, the community's commercial and recreational facilities are very accessible to these residential areas.

At the present time, there is a shortage of vacant lots for new residential development in Deloraine. This is a major concern as the lack of available building sites may discourage people from moving to the community. Such a constraint to development affects the growth of the community, and prevents the local economy from operating at its maximum potential, particularly the construction trades. Therefore it is desirable to maintain a small surplus of vacant residential lots in the community at all times.

(4) RENTAL ACCOMMODATION

There is a limited amount of rental accommodation in Deloraine. Two relatively new buildings in the vicinity of the hospital provide residential accommodations for a number of elderly persons. Bren-Del-Win Lodge, immediately north of the hospital, contains 30 suites. Another complex west of this lodge contains an additional 18 suites. Aside from this, rental accommodations consist of a fourplex in the north-east sector of town, several suites in a former motel adjacent to P.T.H. No. 21, several suites in the second floor of a downtown business, and a few suites in several residences in the community. Other than the senior citizens housing, the additional rental accommodation is estimated to be between 10 and 20 units. Approximately 12 percent of the

community's housing is provided by these various rental accommodations.

The town council has indicated that there is a need for additional residential suites to accommodate senior citizens. The population projections noted in Part IV would seem to indicate that this is indeed the case. Additional multiple housing facilities for senior citizens would also enhance the availability of single family homes for newcomers to the community. Other rental accommodation is generally considered to be adequate. However, this situation could temporarily change if oil exploration and development, with its highly mobile labour force, extends into this area.

(5) MOBILE HOMES

The third component of existing residential development is mobile homes. According to a recent count, there were 32 mobile homes in the community, which represents approximately 6 percent of all of the housing in the community. These mobile homes are located in two areas. There is a strip of mobile homes along the east boundary of the town, south of the collegiate. In this area, each mobile home owner also owns the lot upon which the mobile home is placed. This has resulted in a reasonable spacing between the mobile homes. In time, this may also lead to significant landscaping improvements in this area, as these residents are property owners with some degree of permanence in the community. The second mobile home area consists of a cluster of mobile homes in the south-eastern corner of the community. These mobile home owners do not own the land. Instead, they pay a rental fee to the town. These mobile homes are spaced quite close together and the area has very little landscaping amenity.

In the past, the town has not allowed mobile homes to be located in any developed part of the community other than these 2 areas. This practice is quite common in communities such as this. Mobile homes have a long slender shape, which implies the need for an unconventionally shaped lot in order to provide for desirable setbacks from property lines. The need for occasional truck access also constitutes some limitations for the development of a portion of the lot and the adjacent street. The common practice is to establish a cluster of specially shaped lots to accommodate the unique characteristics and needs of mobile homes on the periphery of conventional residential areas.

The existing mobile home areas are fully occupied, and there is a need to provide for additional mobile home areas in the community.

(6) HOME OCCUPATIONS

In communities such as Deloraine, it is common to find that some commercial or service oriented businesses are being conducted out of homes in residential areas. Often, these small scale operations provide a needed service in the community and enable fledgling enterprises to grow and to become established. However, they may be counter-productive to efforts to sustain and strengthen the downtown area, and may cause some inequities in the local taxation system. Such operations are not a major concern in Deloraine at this time. However, some home occupations, depending on the types of goods or services offered, may result in local neighbourhood problems, such as increased traffic and parking problems, noise, or unsightly appearance of property. This may be a cause of friction among neighbours, and may result in complaints about reduced property values. Also, such operations may expand to the point where they would no longer be considered desirable in a residential area. In the Development Plan and Zoning By-law, council

may wish to consider adopting policy guidelines with regard to the type and scale of home occupations in residential areas.

(7) IMPLICATIONS FOR FUTURE URBAN DEVELOPMENT

- (a) At the present rate of construction, there is a shortage of serviced lots for new homes. There is a definite need to identify and promote new residential expansion areas. Ideally there should be a 3 to 5 year supply of serviced lots available for development. At current rates of construction, and allowing for some infilling in existing residential areas, a supply of approximately 20 would seem appropriate. In order to offer a choice of locations, and to prevent an individual developer from monopolizing the market, several expansion areas would be desirable. In addition, infilling should be encouraged in existing residential areas, as a means of economically increasing the supply of residential lots.
- (b) Similarly, there is a need to designate and service an area for additional mobile home development, as there is a shortage of mobile home facilities in the community at this time.
- (c) The projected increase in the number of senior citizens suggests that some specialized residential facilities will be required. Such facilities will also enhance the availability of existing single family residences.
- (d) In the designation of any future residential development areas, the proximity of schools and the downtown area should be considered.
- (e) The mixture of industrial uses in the residential area indicates a need to establish zoning controls to prevent any future occurrences of this nature.

- (f) The implementation of zoning controls should ensure that future development does not lead to problems of overcrowding in all residential areas, and should prevent the intrusion of undesirable developments into or adjacent to residential areas.

3. COMMERCIAL

(1) GENERAL CONSIDERATIONS

Deloraine is considered to be the service centre for the surrounding farming area. Therefore, one of the most important components of the community is the commercial sector. In addition to providing goods and services to local farm families and residents of the town, the commercial sector also serves as a focus for social activity, employs a substantial number of people, and generates a significant amount of tax revenue.

In a planning program, it is useful to make a distinction between several categories of commercial development, particularly the central business district (C.B.D.) and highway commercial development. It is important to understand the fundamental differences between these two types of commercial development, as they have different site and locational requirements, and thus should be treated differently in any planning program.

- (a) Central Business District - The central business district is the heart of a community, and contains the highest concentration of commercial activity. Commercial establishments in the central business district provide a wide range of goods and services. Traditionally, such establishments have been oriented to service pedestrian traffic. Individual buildings abut each

other and are built adjacent to the public sidewalk. As a rule, in small communities the merchants do not provide any facilities for on-site customer parking.

(b) Highway Commercial Development - This type of commercial establishment is primarily intended to provide goods and services to customers travelling in vehicles. There are two basic components of highway commercial development:

(i) Establishments which provide on-site parking or service for customer vehicles, such as motels and service stations.

(ii) Establishments which require large areas for the purposes of exterior display and accessory storage of merchandise, such as farm implement dealerships.

Considering these components, the most desirable locations for this type of development are large sites adjacent to major streets.

A third type of commercial development, the shopping plaza or shopping mall, is a relatively new form of commercial development. These types of development are viewed as desirable complements to the C.B.D. in metropolitan areas. However, there have been recent tendencies to develop these kinds of facilities in smaller communities. Usually, the proponents of this type of development select a large inexpensive site on the periphery of the community. This presents a number of problems in smaller communities.

- The market is relatively small and insufficient to support both the shopping mall and the established central business district.

- Shopping malls siphon development from existing commercial areas, which leads to vacant buildings and underutilized or abandoned land in the central business district
- Shopping malls represent a system of total management and control of the shopping environment. Mall management usually controls factors such as hours of business, rent structure, and selection of tenants.

On the other hand, a shopping plaza or shopping mall, if properly planned and integrated into the existing central business district, can enhance the downtown area. In view of these considerations, Council should consider some guidelines concerning the future location of any developments of this nature.

(2) THE CENTRAL BUSINESS DISTRICT IN DELORAINE

- (a) Location and General Characteristics - The existing central business district is primarily located along 2 intersecting streets, Broadway and North Railway Avenue. The most intensively developed area consists of 2 blocks of frontage along the north side of North Railway Avenue. There is a significant amount of commercial development along Broadway, but it is less densely developed than the North Railway Avenue frontage. The railway station grounds have to be considered as a major component of the central business district, even though they are largely undeveloped. This vacant expanse of railway property splits the southern portion of central business district from the rest of the downtown area, and generally gives the downtown area the appearance of being underdeveloped. At present, the northern portion of the station grounds is used for off-street parking. The central business district does not have any distinct boundaries, as several com-

mercial establishments are located along the side streets.

As with most other rural communities, several of the noticeable characteristics of the central business district are a general lack of landscaping and deterioration of some of the older buildings. Council is attempting to improve this situation through participation in the Main Street Manitoba program. This program makes a substantial amount of funding available for landscaping improvements to public property. A more limited amount of money is also available for storefront renovations.

- (b) Expansion Potential - The availability of land for new development in the central business district does not appear to be a problem. At present, there are several vacant lots in the existing commercial area which could be developed on an infilling basis. In addition, there are several large vacant areas which could be developed for commercial purposes. The most prominent of these areas is the northern portion of the railway station grounds. However, this railway property is only 75 feet in depth, which is not favourable for any large buildings. In addition, sewer and water services would have to be developed. In the absence of a rear lane, loading facilities could also be a problem.

Another large vacant area exists adjacent to Cavers Street North. This area is not as prominent as the older vacant areas, and is therefore less ideally suited for commercial use. It may however, be suitable for those types of commercial use which are not too dependent on high volumes of passersby and walk-in trade.

In view of the relative abundance of land for expansion, Council is in the position of making some policies and decisions which can significantly influence the nature of future development in the central business district. It has been generally observed that a number of benefits occur when businesses are concentrated within a compact and geometrically simple area. Such an area functions as a collective focus for commercial activity, and each business benefits from casual walk-in trade from people who may be attracted to the area by another business. The notion of geometric simplicity is also important, as shoppers may perceive all businesses along one or two major axes of travel, and may be totally unaware of any businesses existing elsewhere. In view of these considerations, it would seem apparent that the vacant railway property offers the best opportunity for any major development within the central business district and that such development should be encouraged by Council.

- (c) Parking - In order to ensure the long term viability of the central business district, it is essential to provide sufficient parking for customers' vehicles. Due to the large vacant areas described above, parking is not a problem in the central business district. At the present time, most of the traffic utilizes the on-street parallel parking areas adjacent to the curb, and these vacant off-street areas provide a substantial amount of overflow parking. As these vacant areas are developed, the amount of available parking facilities will be reduced to the point where parking may become a problem in the central business district. Therefore, parking facilities should be considered in the future planning of the central business district.

(3) HIGHWAY COMMERCIAL DEVELOPMENT

- (a) Location and Characteristics - On the basis of the criteria described in subsection (1) above, there are 10 highway commercial establishments in Deloraine. These consist of 3 service stations, 2 implement dealers, 2 car dealers, 1 recreational vehicle dealer, 1 motor hotel and 1 drive-in restaurant. Most of these establishments are situated in 2 general areas, either at the fringe of the central business district, or adjacent to P.T.H. No. 21 in the western portion of the town.

Most of these establishments appear to have adequate property to meet their needs. However, two of the service stations are located on small lots in the midst of pedestrian shopping areas. It is observed that these two operations seem cramped, and that they contribute to local traffic problems. Generally it is not a good practice to mix pedestrian oriented types of development and vehicular oriented types of development for these very reasons, in addition to the general visual incompatibility.

Most of these commercial establishments have buildings which are in good to excellent condition. One of the most obvious problems is a landscaping problem, as some of these establishments contain large gravel covered surfaces.

Farm implement dealerships are one form of highway commercial development which can create some visual problems. On occasion, the property may not be well maintained, and may become overgrown with grass and weeds. In addition, if a large quantity of old equipment is stored in a prominent portion of the site, the

site tends to be generally unattractive. While these problems may not be significant in Deloraine at this time, they should be given some consideration in the Development Plan.

- (b) Development Potential - As noted above, most of the existing commercial uses appear to have sufficient land to meet their needs. In addition there are several large vacant sites adjacent to P.T.H. No. 21 in the western portion of the community. These lots were subdivided in 1981 to provide a supply of land for highway commercial development. While these lots would normally be considered to be in a good location, there are several shortcomings. Firstly, this area is subject to occasional flooding as a result of the overflowing of the Deloraine Drain West, which is more specifically discussed in Part III. Secondly, this area is not serviced by municipal sewer and water systems. Due to the distance and cost factors, it does not seem probable that this area will be serviced in the foreseeable future. In addition, several residences have recently been constructed in this area, thereby depleting the supply of these lots. If this trend is allowed to continue, the remaining few lots will be jeopardized.

Other than these few lots, there is no apparent availability of land for highway commercial development within the town limits.

(4) IMPLICATIONS FOR FUTURE URBAN DEVELOPMENT

- (a) There is an abundance of vacant land that has the potential for commercial development in the central business district. It may be desirable to give some priority to certain areas in order to stage the development of municipal infrastructure.

- (b) It is desirable to preserve the pedestrian oriented character of the central business district. Any future development in the central business district which involves on-site parking or service to vehicles should be treated with extra care and attention.
- (c) In order to preserve the current supply of highway commercial lots, it would be desirable to regulate the further intrusion of residential development in the area adjacent to P.T.H. No. 21.
- (d) In view of the limited supply of lots for highway commercial development, it would be desirable to designate an area for future long-term highway commercial development.

4. INDUSTRIAL

(1) GENERAL CONSIDERATIONS

When most people think of industrial development, they usually think of a manufacturing enterprise which produces specific products. In community planning, a broader view is taken. A wide number of businesses that are not normally considered to involve manufacturing processes are classified as industrial. In large part, the classification is based on the various characteristics of such businesses, such as visual appearance, and the amount of noise, dust, smoke, odour, vibration or truck traffic generated on the premises. It is also for these reasons that industrial development is generally considered to be incompatible with other types of development, particularly residential development.

Most of the rural communities in Manitoba contain the following businesses which are classified as being industrial for the purposes of community planning:

- Operations involving the processing, storage and/or shipment of agricultural products,
- Operations involving the storage and sales of commodities such as bulk fuels and chemicals,
- Construction and contractors' establishments,
- Trucking terminals and public works compounds,
- Auto wrecking establishments.

Obviously these types of development will have varying effects on the surrounding area. Therefore it is common practice to classify these types of development into 2 or more groups, such as light industrial, which refers to those types of development which are least offensive, and heavy industrial, which contains the most objectionable types of development. Most of the establishments described above would be considered as heavy industrial. Light industrial uses would typically consist of small contractors establishments, and storage buildings for non-hazardous goods, such as lumber yards.

(2) HEAVY INDUSTRIAL DEVELOPMENT IN DELORAINE

To further elaborate on the above discussion, heavy industrial uses in Deloraine consist of one grain elevator, several bulk fuel establishments, liquid fertilizer storage, one trucking terminal, and one ready-mix concrete and sand/gravel establishment. Traditionally, most of these types of development have been located adjacent to railway sidings, due to the bulk nature and mode of transport of the commodities involved. Some of these establishments are still presently located adjacent to the railway in Deloraine.

It should be noted, however, that the trucking industry has taken over a considerable portion of the transportation business, and more recent establishments tend to be located in more peripheral areas of the community, thereby leaving portions of the railway yards vacant. In some respects, this is probably a desirable trend, as the central railway yards are one of the most visually prominent areas in the community, and some of these types of development could be considered as being unattractive, a nuisance or even a hazard to nearby property owners.

The traditional sites for grain elevators in the centre of the community are now considered to be undesirable. Not only are there the usual problems of noise, dust and truck traffic, but the scale of the elevator operations has become so large that the central sites are now considered to be too small and confined for modern elevator operations. When grain companies are faced with new construction, the preference is usually for larger sites on the periphery of the community. This enables the elevator to build a larger complex which can accommodate deliveries by large semi-trailer trucks. This also eliminates a substantial volume of heavy truck traffic from the town streets. One of the grain elevators in Deloraine, Manitoba Pool Elevators, recently constructed an elevator 1/4 mile west of town after the former elevator was destroyed by fire. Perhaps the major concern of this relocation trend is that new elevators are often constructed in the adjacent rural municipality, thereby eroding the town's tax base.

There are several industrial developments located on the periphery of Deloraine, notably the trucking terminal in the north-west sector and the concrete, sand and gravel operation in the south-east sector. These developments are located close to residential areas, which raises concerns about dust, noise and truck traffic.

In addition, there are several industrial developments in the R.M. of Winchester, immediately outside the town boundaries. The most noticeable concentration is adjacent to Broadway South. This presents concerns of fringe development, as more specifically discussed in Section 8. It is also noted that this development is adjacent to the southern access to the community. One of the aims of community planning is to promote the attractive development of the community. One of the methods of achieving this is keeping industrial developments out of visually prominent areas, particularly the central business district and adjacent to the major approaches to the community.

In recent years, a wide range of chemicals has been developed for agricultural use. Some of these chemicals, such as anhydrous ammonia, are extremely hazardous. The town's Development Plan and Zoning By-law should pay particular attention to establishments involved with these types of chemicals. Very strict controls, if not a total prohibition, should be considered.

Most of the existing industrial structures are in good to excellent condition. As with any industrial use, the appearance of the site may be a cause for concern. However, industrial uses, by their nature are generally unattractive,

and the only real solutions for this concern are an obscure location, or the use of landscaped buffers to separate the industrial uses from other types of development.

(3) LIGHT INDUSTRIAL DEVELOPMENT IN DELORAINE

This category consists primarily of contractors' establishments and lumber yards. Most of these establishments are located in the north-east sector of the community. Two contractors occupy commercial buildings along Broadway.

The buildings occupied by these businesses vary in condition from good to excellent. The two buildings on Broadway occupied by contractors blend very well with adjacent commercial buildings. Perhaps the only significant concern associated with some of these establishments is the exterior storage of material. Such exterior storage may present an aesthetic concern, particularly to nearby residents.

(4) INDUSTRIAL DEVELOPMENT POTENTIAL

If Council accepts the premise that the vacant portions of the railway station grounds in the central portion of the community, between Kellett Street and Lovett Street, should not be developed for industrial purposes, then there is very little available land which would be suitable for industrial development. Several small areas in the north-eastern sector may be suitable for infilling with light industrial development.

Given the very limited availability of land, any prospective industrial development may be tempted to select an arbitrary location on the periphery of the town, or else in the R.M.

of Winchester, as has happened before. In the absence of municipal zoning, a prospective industrial development may also be inclined to locate in the central station grounds, or adjacent to an established residential area.

(5) IMPLICATIONS FOR FUTURE URBAN DEVELOPMENT

- (a) In view of the current mixture of land uses in Deloraine, it would be desirable to minimize the intrusion of future industrial development into residential and commercial areas by means of specific locational policies and regulations.
- (b) In order to attract and accommodate future industrial development, it would be desirable to designate an area for industrial park development. Such an industrial area should have several lots available at all times for industrial use. Financial assistance for such an undertaking may be available through grants from senior levels of government.
- (c) In developing areas for future industrial development, matters such as truck routes, access and infrastructure, should be considered, as well as separation or buffering from adjacent development.

5. INSTITUTIONS AND COMMUNITY FACILITIES

(1) SCHOOLS

The two schools occupy large sites on the periphery of the community. The elementary school contains 11 classrooms and a gymnasium, and occupies 8.75 acres of land in the southwest corner of the community. This school was built in 2

phases in 1962 and 1964, and is still in very good condition. Due to its location, it is somewhat remote from residential areas north of the railway. The collegiate complex consists of three buildings linked together on a 6.73 acre site which is located on the east side of the town, south of the railway. The original building, constructed in 1928, is not in use at this time due to its condition. Two additions were built in 1959 and 1968, and contain 11 classrooms and a gymnasium, which are in good condition. The collegiate is within easy walking distance of all residential areas.

At the present time, three wood frame structures are also being used as individual classrooms. The school division is attempting to have the unused original school building demolished, and replaced with a new wing of classrooms at the collegiate site.

In the 1982-83 academic year, approximately 495 students attended schools in Deloraine. Approximately 310 of these were bussed, with the remainder living in the town. The total number of students declined to approximately 475 in the 1983-84 academic year.

(2) HEALTH CARE

The hospital, personal care home, and senior citizens' home occupy a 2.75 acre site in the western portion of the community. The 20 bed hospital was built in 1955, and a 16 bed personal care home, Delwynda Court, was added in 1977. The hospital administrator has indicated that there is a need for an additional 10 personal care beds in this complex. An adjacent medical clinic contains the offices of the local doctors.

(3) CHURCHES AND MEETING HALLS

At the present time, there are 4 active churches in the community. A fifth church, the Presbyterian Church, is a fine, old stone building which has been converted to office use. Three of the existing churches occupy small sites at various locations in the residential areas. The Roman Catholic Church occupies a large parcel of land in the north-west corner of the community. Considering the current shortage of residential lots in the community, it would be desirable if a portion of this block could be converted to residential sites. All of the churches appear to be in reasonably good condition.

There are four meeting halls in the community. Two of these are relatively small, and occupy small sites adjacent to South Railway Avenue. These are older wood frame buildings which appear to be in reasonable condition.

The two larger halls are owned by the Royal Canadian Legion and The B.P.O. Elks, and are located adjacent to Cavers Street North. Both buildings have recently had substantial renovations, and are considered to be in very good condition. The town owns a large area of land across the street from these two halls, which is used as a parking lot for these facilities.

(4) MUNICIPAL OFFICES

A new structure at the intersection of Broadway and South Railway Avenue contains the offices of the Town of Deloraine and also houses the town's maintenance and firefighting equipment. This central location is ideal for emergency vehicles. The building is in excellent condition and is considered to be adequate for the foreseeable future.

The former Presbyterian church at the corner of Mountain Street and South Railway Avenue contains the offices of the R.M. of Winchester.

(5) IMPLICATIONS FOR FUTURE URBAN DEVELOPMENT

The various institutions and community facilities are considered to be in very good condition. The most immediate need would appear to be expanded personal care facilities for senior citizens. This is also suggested by the population trends in Part IV.

6. PARKS AND RECREATION

Deloraine has an impressive array of recreational facilities for a community of its size. This reflects a long tradition of sportsmanship in the community. The most recently constructed facility is the solar heated outdoor swimming pool, located in the north-east sector of the community, adjacent to the arena. The arena is a steel building, approximately 20 years old, with an artificial ice surface. The nearby curling rink also contains an artificial ice surface.

Most of the major outdoor recreational facilities are located in the north-west sector of the community. The agricultural grounds and harness racing track occupy 48 acres of land. Most of the buildings on the agricultural grounds, particularly the grandstand, have been in existence for a considerable number of years. In addition to the two baseball diamonds in the north-west sector, other outdoor playing fields are located on the school sites, in the south-west and south-east sectors of the community. Thus, there is an excellent distribution of land for outdoor playing fields throughout the community.

A senior citizen's drop-in recreational centre is operated by the town in the downtown area. In addition, the town and the R.M. of Winchester jointly operate the theatre and library.

There are only 2 park type areas in the community. The most important of these is centrally located at the intersection of Broadway and South Railway Avenue. The other is the campsite area adjacent to North Railway Avenue on the west side of town.

In addition to the recreational facilities within the town, there are a number of recreational areas in the surrounding region. The Lake Metigoshe area, approximately 18 miles south-east of the community, is actively used for swimming, fishing, boating and camping. A nine hole golf course is situated adjacent to the reservoir, approximately five miles south-east of the community. Whitewater Lake, approximately five miles north-east of the community, provides an environment for the hunting of ducks and geese.

With the exception of the buildings in the agricultural grounds, the town's park and recreational facilities are considered to be well maintained and in very good condition. Council is of the opinion that all of the existing facilities are adequate, and that no further improvements are required. In view of the population trends noted in Part IV, the recreational needs of senior citizens will become more significant in the future.

7. AGRICULTURE

A major portion of the undeveloped land within the community, approximately 192 acres, is used for agricultural purposes. The existing agricultural activities consist of cultivated cereal crops, hay fields, and pasture. Hay production is probably the most desirable form of agricultural land use, as it minimizes any problems with wind borne dust and chemicals.

The Environmental Control Branch no longer regulates the keeping of livestock within urban areas. The Zoning By-law should establish some criteria regarding the keeping of livestock in the community, in order to minimize any associated nuisances and any risk to the health of the general public.

Most of these agricultural areas should be considered as a reserve of land for future urban development. In considering any subdivision or development of these areas, a number of factors should be considered, such as an overall concept plan for the total area, the availability and costs of various services, and the suitability of land for development, particularly in view of the drainage and flooding problems. It is particularly important to ensure that these areas are not thoughtlessly subdivided into parcels which would create a difficult geometric pattern for future urban development.

8. FRINGE DEVELOPMENT

Fringe development is a term which describes the various types of non-farm development which occur immediately beyond a community's boundary. Such development often takes the form of various residential, commercial or industrial facilities. A combination of factors, such as cheaper land, lower taxes, less municipal regulation and fewer neighbours often tend to attract development outside a community's boundary.

On the surface, one might appreciate why these factors would lure development outside of the community. However, from the community's point of view, unplanned fringe development presents a number of concerns, such as:

- It may create conflicting land uses at the community's boundary.
- It may create a strip of unattractive development along the approaches to the community.

- It may result in pressure for urban services to be extended beyond the community boundary.
- It may preempt land for future urban expansion.
- It decreases the growth of the community's assessment base.
- It creates inequities in the tax system between urban and rural developments.
- The infrastructure of the urban community may become underutilized.
- It undermines urban land values, and inflates agricultural land values.
- It creates questions of annexation, which are usually unpopular.

Fringe development consists of urban associated facilities which capitalize on locations close to the community and yet benefit from lower rural costs. The major problem is that this type of development occurs outside of the community's jurisdiction, and thus the community has no means of planning or regulating such development.

It is noted that a considerable amount of fringe development has located adjacent to the town boundaries in Deloraine, particularly the southern boundary. Other than annexation, the most appropriate way for Council to influence future land use outside of the community is to undertake a joint planning program with the R.M. of Winchester. A local district planning board would contain members from the councils of the town and the rural municipality, and would deal with development issues in the interests of both municipal corporations. An alternative would be to encourage the R.M. of Winchester to adopt land use policies in the area immediately surrounding the town which would be compatible with the town's development policies.

P A R T V I
TRANSPORTATION FACILITIES

1. PROVINCIAL TRANSPORTATION NETWORK

The Town of Deloraine is located adjacent to the southern intersection of P.T.H. No. 3 and P.T.H. No. 21. These paved highways provide good transportation linkages in all cardinal directions to other communities in the region. Accesses and development adjacent to these highways are regulated by the Highway Traffic Board. Prior to construction, a permit must be obtained from the Board for any access connection to these highways, any structure above or below ground within 125 feet of the edge of the highway right-of-way or any tree planting within 50 feet of the edge of the right-of-way. A 350 ft. radius control circle also exists at the intersection of P.T.H. No. 21 and P.R. No. 604 (Deloraine Access Road).

Two of the town streets, Broadway and North Railway Avenue, are the principal entrances to the community. These are designated provincial roads, with the Department of Highways and Transportation being responsible for 100 percent of the construction and maintenance of these roads. The town is responsible for regulating access to these roads and adjacent building setbacks within the town limits.

According to the engineering consultant's report, all roads under the jurisdiction of the Department of Highways and Transportation appear to be in good condition.

2. MUNICIPAL TRANSPORTATION NETWORK

As noted in Table V-1, approximately 23 percent of the built-up area of the town is contained within the street rights-of-way. Unlike most other communities, there are only 9 blocks in

Deloraine which contain back lanes. These street rights-of-way provide access to private property, and also provide the basic network of vehicular and pedestrian circulation. They also form the network for the town's drainage and underground utility systems.

Virtually the entire town is laid out in the rectangular grid pattern, which is typical of most rural communities in Manitoba. The most recently designed streets are culs-de-sac. Most of the area between Mather Street and Kellett Street is presently undeveloped, as it has a rather inefficient layout and also experiences occasional flooding problems. There are no apparent traffic problems in the community.

Approximately half of the streets in the community are surfaced with asphalt or oil treated gravel. The remaining streets are gravel surfaced. The consultant's report has indicated that some of the paved roads have deteriorated and should be repaved. A number of the town streets are eligible, in approved cases, for fifty percent cost sharing from the Department of Highways and Transportation for road construction only. These grant-in-aid streets are illustrated on Appendix D.

Local silty soil conditions present some difficulties for road construction. Insofar as it is economically impractical to remove all of the silt, excavations in existing roads and new road construction should be permitted to settle for several years prior to the installation of pavement. This allows the disturbed soil to settle and consolidate, and corrective measures to be taken where problems develop prior to the installation of expensive pavement. The engineering consultant's report describes this problem in more detail.

The town is presently involved in a program to pave most of the unpaved streets. This paving program will be staged in two year intervals for the next ten years.

3. RAILWAY SERVICE

Canadian Pacific Rail links Deloraine to many of the other communities in southern Manitoba, such as Boissevain, Killarney and Morden, and ultimately to Winnipeg. Some major maintenance work has recently been undertaken along this segment of the railway. A branch line from Deloraine also provides service to Goodlands and Waskada to the south-west. Both of these railways are expected to remain in service until the year 2000. At the present time, the frequency of railway traffic is 5 trains per week.

4. BUS SERVICE

There is daily bus service between Deloraine and Winnipeg and between Deloraine and Brandon.

5. MUNICIPAL AIRPORT

There is a municipal airport in the south half of Section 28-2-23, approximately 2 1/2 miles south of the community. This is a publicly licensed facility which is available for the use of all light aircraft. The east-west runway is 4,000 ft. in length, and the north-south runway is 2,640 ft. in length. Beacon and runway lighting are provided, which make this airport facility acceptable for night use. Other facilities, such as tie downs, telephone and plumbing services are provided. Meals, accomodation and taxi service are available in Deloraine. The airport is used by a number of private aircraft, including air ambulance service, crop sprayers and a monthly DC-3 flight. Future plans for the airport include widening the runways to 75 feet, thereby upgrading it to a Class 3 airport.

P A R T V I I
UTILITIES AND SERVICES

The information in this Part is primarily derived from the December 1983 report of A.J. Poetker and Associates Ltd., Engineering Consultants. For further particulars, the reader should refer to the consultant's report.

1. WATERWORKS SYSTEM

(1) SOURCE

Deloraine's water supply is obtained from a man-made P.F.R.A. reservoir located on the Turtlehead Creek in Sections 19 and 30, in Township 2, Range 22, approximately 5 miles south-east of the town. After allowing for factors such as evaporation, seepage and dead storage, it has been estimated that this reservoir is capable of supplying 1,360,000,000 imperial gallons of water per year. This is sufficient to supply 3,700 persons at an average rate of consumption of 100 imperial gallons per person per day. The dam is in good condition and there are no problems with the source of supply.

A 5 mile asbestos cement pipeline links the reservoir to the town's treatment plant. The pipeline operates by gravity flow, at a rate of flow of approximately 200 imperial gallons per minute. The pipeline capacity is adequate to supply a population of 2,400 persons at the rate of 100 imperial gallons per person per day. The consultant has recommended a pretreatment facility at the pipeline intake to help control taste and odour problems.

(2) TREATMENT PLANT

The town's water treatment plant is located in the south-eastern corner of the community, at the intersection of Renton Avenue and the eastern government road allowance. The consultant has indicated that the treatment plant is now capable of meeting only present domestic needs, with little reserve capacity to support additional community growth. The present rate of water treatment is 60 to 65 imperial gallons per minute, which is considered to be too slow. In addition, the chemical feeding and mixing systems are considered to be inadequate.

The storage facilities for treated water consist of a water tower with a capacity of 62,500 imperial gallons, and a storage tank under the treatment plant with a capacity of 20,000 imperial gallons. Treated water storage falls far short of that required to meet peak day demands, fire flow demands and emergency demands. The consultant has recommended that a 100,000 imperial gallon storage facility should be added to the system.

(3) DISTRIBUTION SYSTEM

The underground distribution system provides service to virtually the entire built-up area of the town. The only significant area which is not serviced is the new development adjacent to P.T.H. No. 21. The piping system is not prone to significant deterioration over time, and is considered to be in excellent condition.

The distribution system is capable of delivering water at adequate rates for domestic consumption, and there are no constraints for future domestic use. However, the rate of delivery is inadequate for fire protection in some areas of the community. The developed area south of the tracks is

adequately protected, as the rate of delivery is 800 imperial gallons per minute. However, any future development west of Patterson Street could be provided with only 400 imperial gallons per minute by extending the existing distribution lines. Most of the developed area north of the tracks is only protected to the level of 400 imperial gallons per minute. This low level of protection can be attributed to the fact that there is only one 6 inch pipe delivering water across the railway, which in effect, creates a bottleneck in the delivery system. Fire protection in future development areas will be a problem unless central and trunk services are upgraded.

(4) IMPLICATIONS FOR FUTURE URBAN DEVELOPMENT

In order to accommodate significant future urban growth, the following components of the waterworks system will require improvement:

- (a) The treatment system will have to be upgraded.
- (b) Additional storage facilities for treated water will be required.
- (c) To provide an improved standard of fire protection north of the railway, an additional water line linkage across the railway property will be required.
- (d) A trunk line will be required to service any significant new development west of Patterson Street, including the area west of the C.P. Waskada branch.

2. SEWAGE SYSTEM

(1) COLLECTION SYSTEM

Most of the development in the town is serviced by the municipal system. The only significant developed area which

is not serviced is the new development adjacent to P.T.H. No. 21. There are 2 lift stations in the town's collection system. The system is considered to be in good condition, although some upgrading of the lift stations (replacement of pumps) may be required to service future urban development.

(2) TREATMENT FACILITY

The town's sewage lagoons are located in the north-west quarter of Section 2-3-23, approximately 1,500 ft. east of the town limits. The facility contains one primary cell for the treatment of raw sewage, and two secondary cells. The primary cell is considered to be marginally overloaded, while the secondary storage cells have surplus capacity for the existing conditions.

(3) IMPLICATIONS FOR FUTURE URBAN GROWTH

In order to accommodate significant future urban growth, the following matters will have to be taken into consideration:

- (a) Expansion of the existing gravity flow system can be readily accommodated in the areas shown on Map 3. Expansion beyond these areas would require significant investments for additional lift stations.
- (b) Expansion of the primary cell in the sewage lagoons should be considered in the near future in order to accommodate the wastes generated by future urban development.

Environmental Management Division guidelines recommend that no community development be located within 1,500 feet of sewage lagoons, in order to avoid problems caused by unpleasant odours. This would preclude any significant future development in a major portion of the North-West Quarter of Section 2-3-23.

3. DRAINAGE SYSTEMS

(1) INTERNAL DRAINAGE

The existing drainage system consists of a series of open ditches adjacent to the streets. The area north of the railway drains radially toward the outskirts of the community. The south-east sector of the community generally drains toward Stuart Avenue. The drainage then flows in an easterly direction, and a pumping station at the east end of Stuart Avenue pumps the water across the eastern road allowance. The water then joins the Deloraine Drain East, which flows in a northerly direction. The south-west sector of the community generally drains toward the low areas in the western portion of the community, and then into the Deloraine Drain West.

A truly effective drainage system is not possible, due to the relative flatness of the terrain. A storm sewer system would be quite expensive, and the benefits would be relatively small.

(2) FLOOD CONTROL

As noted in Part III, certain areas in the western portion of the community experience occasional flooding problems as a result of rapid snowmelt in the area south of town. The various alternative solutions proposed by the Water Resources Branch in 1981 are considered to be too expensive. The engineering consultant has recommended another alternative solution which would appear to be less expensive. Further discussion concerning the flooding problem and the engineer's recommendations may be found in Part III.

(3) IMPLICATIONS FOR FUTURE URBAN DEVELOPMENT

In new expansion areas, local drainage services can be provided to the equivalent level of existing services in the developed area. It is recommended that an engineer design the drainage system in new development areas before such development is approved. The drainage design should include lot grades and site drainage, and should also make provisions for the drainage of future adjacent developments.

As recommended in the engineering consult's report, the flood protection in the eastern portion of the community should be enhanced by raising the level of the eastern road allowance.

Some areas in the western portion of the community are subject to flooding. Until such time as the flood hazard is sufficiently minimized, the only development which should be permitted in such areas is development which would not be significantly damaged by flooding, such as agricultural, park or recreational uses. The alternative would be to reduce the flood hazard to an acceptable level, either through the provision of sufficient fill, or rerouting the existing drainage channel. In either case, further professional study and specifications would be required.

4. GARBAGE DISPOSAL

(1) DISPOSAL SITE

The town's existing garbage disposal site is located approximately 1/2 mile east of the town limits, in the north-east corner of the South-East Quarter of Section 11-3-23. The site occupies approximately 5.4 acres of land. The present method of disposal essentially consists of a mounding operation which occupies 3 acres of the present site.

In previous years, mounding was considered as an acceptable method of garbage disposal. However, times and conditions have changed. Increased public awareness of environmental concerns in recent decades has resulted in more stringent regulations, including regulations governing the disposal of garbage. Provincial authorities now require the mounding of garbage to be supplemented with other measures, such as the periodic covering of garbage with soil cover, and the provision of berms and fencing around the disposal site. It is noted, however, that these measures would be costly to implement at Deloraine's existing disposal site, as cover material and berm material are not available on the site, and would have to be hauled in. Waste disposal sites are not recommended for future building sites, due to potential soil stability problems as well as problems with methane gas generated by decaying garbage.

Provincial environment authorities now consider Deloraine's traditional method of garbage disposal to be undesirable from the point of view of current regulations under The Clean Environment Act. A number of operational concerns have also been identified by the engineering consultant, including rat infestation, problems in containing blowing debris, and lack of a suitable area for the disposal of bulky and metallic waste.

(2) IMPLICATIONS FOR FUTURE URBAN DEVELOPMENT

If the present method of garbage disposal is permitted to continue, this site has enough surplus capacity to provide for the disposal of wastes until well into the next century. If the provincial authorities become more stringent in the application of Clean Environment Act regulations, a new site would be required. In view of the prevalent high water table in the immediate vicinity of the town, the provision

of an alternate site for the trench disposal method would be problematic, as there would be a high risk of the garbage polluting the groundwater. An acceptable site might only be found in the higher altitude area south of the community, and this would significantly increase the annual costs of garbage disposal due to the increased hauling distance.

Environmental Management Division guidelines recommend that no habitable building be placed within 1320 feet of a garbage disposal site, in order to avoid problems with undesirable odours, rodents and other nuisances. This would restrict development in a portion of the South-West Quarter of this Section.

5. MANITOBA HYDRO

Manitoba Hydro's substation is located adjacent to P.T.H. No. 3, approximately 1/2 mile south of the community. The hydro service in the community is distributed by means of aerial distribution lines, most of which are located along rear lanes or along rear property lines through the middle of the blocks. In future development areas some consideration could be given to the provision of underground service, which would be an attractive alternative to timber poles and aerial wires.

6. MANITOBA TELEPHONE SYSTEM

Most of the existing telephone distribution service is provided by overhead wires located on hydro poles. However some underground service lines are located in several areas of the community. Underground service should be considered as a more attractive alternative in future development areas.

P A R T V I I I
M U N I C I P A L F I N A N C E

The intent of this part is to review the Town of Deloraine's municipal finance trends. This will establish a historical finance base that will be useful in projecting future municipal finances and identifying the financial constraints which may be imposed on future municipal projects.

1. ASSESSMENT BASE

Local assessment values are important for several reasons. Firstly, the total taxable assessment represents the basis for local property tax revenues. Secondly, the business assessment forms the basis for the annual business tax revenues. Thirdly, the exempt property values represent the value of all properties that are exempt from property taxes. In cases where such property is owned by the provincial or federal governments, the assessed value is used as a basis for calculating the grants in lieu of taxes from these governments. Fourthly, the equalized assessment is used for determining the town's annual borrowing limits and the annual share of education costs paid by the town. Table VIII-I illustrates this data for the Town of Deloraine from 1971-1982.

It should be noted that the break between 1978 and 1979 on the table illustrates the last reassessment of the town. Since the reassessment process establishes new values for tax purposes, any comparison of assessed values before reassessment to assessed values after reassessment could be quite distorted. It is to be noted that the assessment base of the community has shown some modest increases over this period, which is generally indicative of the rate of new construction and development. The rates of increase were slightly higher during the 1970's than during the early 1980's.

TABLE VIII - 1

ASSESSMENT DATA
TOWN OF DELORAINÉ

	1971 (\$)	1978 (\$)	ANNUAL RATE OF CHANGE (%)	1979 (\$)	1982 (\$)	ANNUAL RATE OF CHANGE (%)
Land Assessment	347,360	383,810	1.50	638,550	652,990	0.75
Building Assessment	1,365,940	1,868,360	5.25	2,178,790	2,490,740	4.77
Personal Property Assessment	-	-	-	-	-	-
Total Taxable Assessment	1,713,300	2,252,170	4.49	2,817,340	3,143,730	3.86
Business Assessment	69,240	84,860	3.22	96,930	110,220	4.57
Exempt Property Assessment	504,200	591,570	2.48	672,120	764,220	4.57
Equalized Assessment	1,732,040	2,243,430	4.22	2,354,660	2,910,880	7.87

SOURCE: Manitoba Department of Municipal Affairs Statistical Information.

2. REVENUES

Table VIII - 2 illustrates the recent trends and the relative importance of the various sources of revenue. Municipal revenue may vary significantly from year to year, depending on the scheduling or urgency of various municipal projects, and depending on the grant policy of senior levels of government. However, despite the variations which may occur, some general observations can be made from this table. Firstly, municipal taxes usually provide 70 to 85 percent of the town's revenue, and grants from senior levels of government usually provide approximately 70 to 80 percent of the town's revenue. However, grants may increase significantly in any given year, depending on any special projects the town may be undertaking.

Secondly, approximately one third of the town's revenue is locally levied for the school division and another third is locally levied for general municipal purposes. These major components have shown some slight increase over this period. On the other hand, the proportion of taxes required for outstanding debt charges has declined dramatically. Some increases are also noted in the areas of "other" revenue, which accounts for items such as the sale of goods and services, licence fees, permit fees, and so on.

Although the increases appear to be quite dramatic, the effects of inflation and the decline in the value of the dollar have not been taken into account. In order to make comparisons in terms of constant dollar values between different years, the consumer price index would have to be calculated into such comparisons. For example, a 1982 dollar value would have to be multiplied by 0.38 to arrive at its 1971 equivalent. This consideration should be borne in mind in the case of all tables in this part.

It is also useful to compare the town's revenue figures to the average for all towns in Manitoba. This information is illustrated in Table VIII - 3.

TABLE VIII - 2
TOWN OF DELORAINE REVENUES

	1971		1976		1981		1982	
	(\$)	% OF TOTAL	(\$)	% OF TOTAL	(\$)	% OF TOTAL	(\$)	% OF TOTAL
TAXATION								
Schools	52,404	30.5	100,903	31.4	187,531	34.9	219,683	32.4
Debt Charges	36,664	21.3	38,938	12.1	46,219	8.6	46,155	6.8
General Municipal	53,970	31.4	101,641	31.7	191,718	35.7	218,804	32.3
Business	3,462	2.0	3,893	1.2	5,130	1.0	5,511	0.8
Other	-	-	-	-	-	-	-	-
Total	146,500	85.2	245,375	76.4	430,598	80.1	490,153	72.3
GOVERNMENT CONTRIBUTIONS								
Grants In lieu of taxes	2,762	1.6	8,752	2.7	18,700	3.5	20,851	3.1
Unconditional Grants	7,280	4.2	14,703	4.6	25,220	4.7	31,865	4.7
Conditional Grants	6,455	3.8	4,636	1.4	4,831	0.9	74,046	10.9
Total	16,497	9.6	28,901	9.0	48,751	9.1	126,762	18.7
OTHER	8,940	5.2	46,686	14.5	58,334	10.8	60,750	9.0
TOTAL REVENUES	171,937	100.0	320,962	100.0	537,683	100.0	677,665	100.0

SOURCE: Manitoba Department of Municipal Affairs Statistical Information.

TABLE VIII - 3
1982 REVENUE COMPARISONS

SOURCE	TOWN OF DELORAINE		AVERAGE FOR ALL TOWNS IN MANITOBA	
	%	\$ Per CAPITA	%	\$ PER CAPITA
School Tax	32.4	193.38	34.6	229.43
Gen. Municipal Tax	39.9	238.09	40.3	266.75
Gov't Contributions	18.7	111.59	12.3	81.37
Other Revenues	9.0	53.48	12.8	85.09
TOTALS	100.0	596.54	100.0	662.64

SOURCE: Manitoba Department of Municipal Affairs Statistical Information.

This table clearly indicates that in 1982, on a per capita basis, the town's revenues were significantly lower (10 percent) than the average revenue of all towns in Manitoba. Since most of these revenues were generated by property taxes, this indicates that Deloraine's property taxes, on a per capita basis, were significantly lower than average in 1982.

3. EXPENDITURES

Expenditures may change dramatically from year to year, depending on the types of projects undertaken by a municipal government. In order to maintain a reasonably stable and predictable tax rate, the costs of major projects are often spread over a period of several years. This may be accomplished in 2 ways. Firstly, if money needs to be borrowed to finance a project, debentures are usually issued, and these debentures may be retired over a period of years. Secondly, the municipality may set up a reserve fund and make annual appropriations to the reserve fund for some anticipated future project. In essence, the difference between these two approaches is the difference between borrowing for and saving for a project.

Table VIII - 4 illustrates the recent expenditure trends in the town during the period 1971 to 1982. The first five items on the table, education, fiscal services, general government, protection and transportation, represent over 85 percent of all expenditures. Some general observations can be made about the information shown on this table. Firstly, there has been an increase in most expenditure areas during this period. This is generally indicative of a widespread trend during the 1971 - 1982 period to upgrade community facilities and to improve the level of service. It should also be recalled that the effects of inflation contribute significantly to these increases.

At this point, it is useful to note that school expenditures are controlled by the school division. The Town of Deloraine has no control over the school division's budget, but is required to raise revenues through property taxation. Approximately one third of the town's expenditures are earmarked for the school division. In addition, a substantial portion of the town's expenditures are "locked_in" to various essential services, such as police and fire protection, road maintenance, and administration. The amount of "discretionary" expenditures, expenditures with which council may make some choices or priorities, is only a small portion of the total expenditures.

As with revenues, it is useful to compare the town's expenditure figures to the average for all towns in Manitoba. This information is illustrated in Table VIII-5.

TABLE VIII - 4
TOWN OF DELORAINE EXPENDITURES

	1971		1976		1981		1982	
	(\$)	% OF TOTAL	(\$)	% OF TOTAL	(\$)	% OF TOTAL	(\$)	% OF TOTAL
Education	53,814	32.8	104,826	32.2	194,533	36.4	227,486	32.2
Fiscal Services	42,206	25.7	63,404	19.5	77,467	14.5	106,841	15.1
General Government	19,488	11.9	44,386	13.6	91,601	17.1	97,211	13.8
Protection	11,074	6.7	20,711	6.4	47,945	9.0	59,489	8.4
Transportation	18,660	11.4	49,193	15.1	56,265	10.5	109,196	15.5
Environmental Health	962	0.6	8,643	2.7	22,405	4.2	27,536	3.9
Public Health	2,639	1.6	804	0.2	864	0.2	350	0.0
Social Welfare	508	0.3	-	-	1,153	0.2	173	0.0
Environmental Planning	6,697	4.1	7,322	2.2	929	0.2	23,391	3.3
Economic Development	573	0.3	2,489	0.8	9,389	1.8	7,737	1.1
Recreational & Cultural	7,486	4.6	23,873	7.3	31,609	5.9	45,908	6.5
TOTAL EXPENDITURES	164,107	100.0	325,651	100.0	534,160	100.0	705,318	100.0

SOURCE: Manitoba Department of Municipal Affairs Statistical Information.

TABLE VIII - 5
1982 EXPENDITURE COMPARISONS

ITEM	TOWN OF DELORAINÉ		AVERAGE FOR ALL TOWNS IN MANITOBA	
	%	\$ Per CAPITA	%	\$ PER CAPITA
Education	32.3	200.25	38.9	254.82
Fiscal Services	15.1	94.05	6.5	42.65
General Gov't.	13.8	85.57	8.4	54.80
Protection	8.4	52.36	8.7	57.32
Transportation	15.5	96.12	11.6	75.71
Recreation	6.5	40.41	6.8	44.70
Other	8.4	52.10	19.1	124.91
TOTALS	100.0	620.88	100.0	654.91

SOURCE: Manitoba Department of Municipal Affairs Statistical Information. —

The totals at the bottom of this table clearly indicate that the town's expenditures were slightly lower (5.2 percent) than the average expenditures of all towns in Manitoba. The percentages of expenditures seem to be relatively comparable in most categories. The large percentage for general government reflects an appropriation of funds for the construction of the new municipal building.

4. CAPITAL DEBT

Table VIII - 6 illustrates the town's capital debt since 1971. The major portion of the debt has been for water and sewer purposes. When the effects of inflation are taken into account, it is apparent that the debt declined significantly from 1971 to 1981. The debt increased in 1982 due to borrowing for the new municipal building. The town's debt is still well within the Manitoba Municipal Board's guideline maximum of 30 percent of equalized assessment.

TABLE VIII - 6

TOWN OF DELORAINÉ CAPITAL DEBT

ITEM	1971	1976	1981	1982
Administration	-	-	-	160,000
Protection	-	-	14,127	12,285
Transportation	71,000	14,000	-	-
Water & Sewer	171,577	159,363	166,474	144,460
Social Services	-	-	-	-
Recreation	-	-	-	-
Other	-	-	-	-
TOTAL UNMATURED DEBENTURES	242,577	173,363	180,601	316,745
DEFERRED LIABILITIES	-	-	-	-
TOTAL CAPITAL DEBT	242,577	173,363	180,601	316,745

SOURCE: Manitoba Department of Municipal Affairs Statistical Information.

It is also useful to compare the town's debt with other communities in the region. This information is illustrated in Table VIII-7.

TABLE VIII-7
1982 CAPITAL DEBT COMPARISONS

COMMUNITY	TOTAL CAPITAL DEBT (\$)	DEBT PER CAPITA (\$)
Deloraine	316,745	278.82
Melita	551,806	477.34
Souris	539,526	311.68
Boissevain	297,330	179.11

SOURCE: Manitoba Department of Municipal Affairs
Statistical Information.

5. IMPLICATIONS FOR FUTURE URBAN DEVELOPMENT

In comparison with other Manitoba towns, Deloraine clearly has a favourable position in terms of expenditures and capital debt. This is a desirable situation if the town is considering upgrading of existing infrastructure, or extending services to accommodate new developments.

PART IX

SUMMARY

Deloraine is the service centre for the surrounding agricultural area, much of which is contained within the Rural Municipalities of Brenda and Winchester. Throughout its history, Deloraine's economy has been dependent on the prosperity of the surrounding agricultural area, and this dependence is expected to continue into the future.

The population in the surrounding rural area has declined significantly since World War II. This decline in the number of rural residents presents some major concerns in terms of the local economy, as it represents fewer consumers shopping in the community. However, this may be partially offset by several factors, such as an increase in the size of Deloraine's trading area as smaller centres to the west and north continue to decline, and the prospect of future economic spin-offs resulting from expanded oil and gas exploration.

The population of the Town of Deloraine has grown at an average rate of one percent per year for the past 30 years. Much of this growth can be attributed to an influx of retiring farmers from the surrounding rural area. At the present time, 30 percent of the town's population consists of senior citizens. This trend is expected to continue beyond the turn of the century, as there are a significant number of farmers in the surrounding rural area who are over 45 years of age. Some modest growth is also anticipated in other age groups, but it will not be as significant as the retirement or pre-retirement age groups.

Virtually all of the available residential lots in the community have been developed. One of the major challenges facing the town is to encourage the creation of new residential areas in order to accommodate the anticipated population growth.

As much of this growth is anticipated to be older people, certain locational requirements should be borne in mind, such as proximity to

the central business district and various social and recreational centres. In addition, there is an apparent demand for expanded personal care facilities and specialty housing to accommodate the anticipated influx of elderly residents. Many of the town's future programs and facilities will also have to be specially tailored to accommodate senior citizens.

As has been indicated in previous sections, there are a number of constraints which impair the community's options for future expansion. These various constraints are illustrated on Map 3. Perhaps the most serious constraint is the perennial flooding problem in many areas adjacent to the built-up area. It is apparent that this problem will have to be overcome before these areas can be developed. A solution to this problem is somewhat elusive, and further study and investment will be required. In the meantime, there is a definite need for a comprehensive planning program which would enable the town to develop the limited areas which are suitable for development. Such a program would also organize major municipal investment decisions, particularly with regard to infrastructure such as streets, sewers, and watermains. A brief examination of the town's recent financial situation indicates that Deloraine is in relatively good condition in comparison to other towns in Manitoba. This would enable the town to embark on some programs to develop new areas.

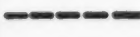
In the past, the development of the community has been somewhat disorganized. This is characterized by the scattered nature of industrial types of development within and adjacent to the community. A planning program will also identify the most suitable areas for future developments of a commercial and industrial nature. With a comprehensive planning program, the future growth of the community can occur in a more organized manner than in the past. In particular, the segregation of future industrial development from future residential areas will result in a more attractive and pleasant community environment.

Town of Deloraine

BACKGROUND STUDIES

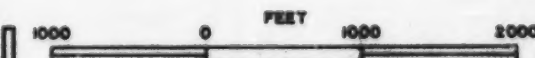
DEVELOPMENT CONSTRAINTS

LEGEND:

-  APPROXIMATE AREAS FLOODED IN 1979
-  ENVIRONMENTAL BUFFERS
-  REQUIRED SETBACKS FROM PROVINCIAL HIGHWAYS
-  EXPANSION LIMITS OF SANITARY SEWER SYSTEM WITHOUT NEW LIFT STATION.
-  TOWN LIMITS
-  1/2 MILE RADIUS FROM ELEMENTARY SCHOOL.
-  1/2 MILE RADIUS FROM DOWNTOWN.

SOURCES:

- WATER RESOURCES BRANCH 1981 REPORT
- DEPARTMENT OF HIGHWAYS
- A.J. POETKER & ASSOCIATES 1984 ENGINEERING REPORT.
- TOWN OF DELORAINE



Manitoba
Municipal Affairs
Municipal Planning

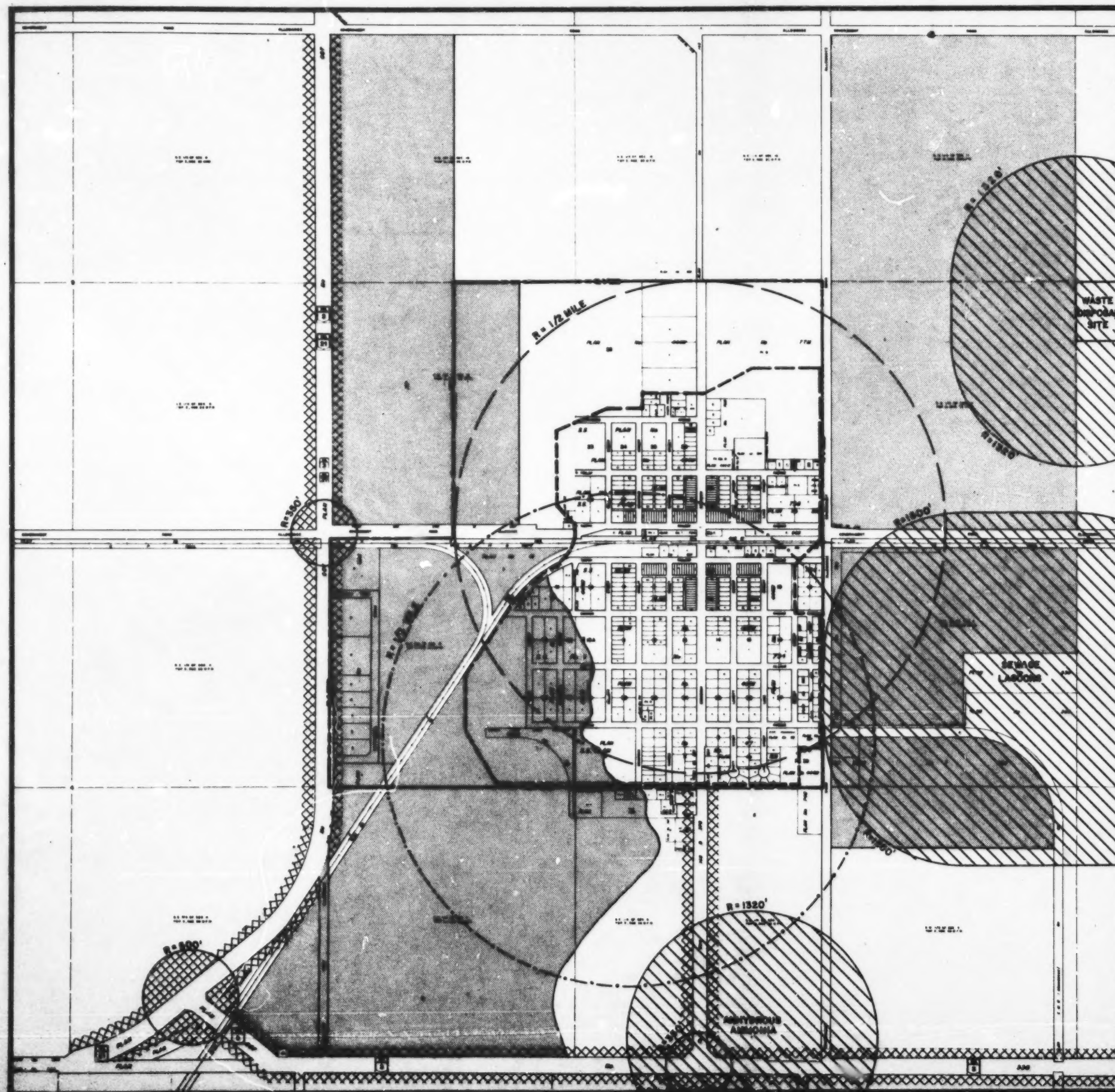


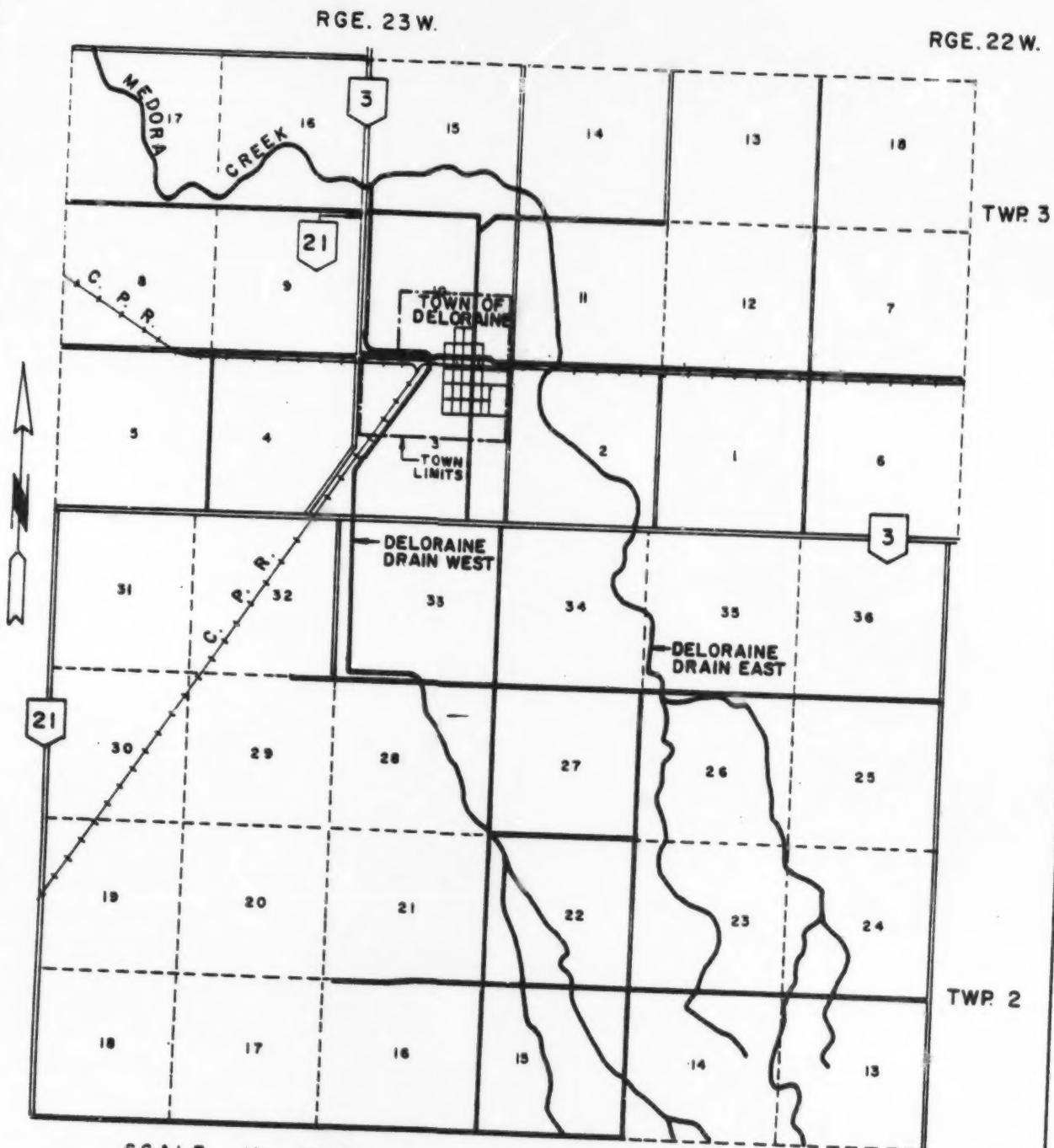
DATE MARCH /1985

DRAWING NO. 413-70-105A

REVISED

DRAWING NO.





APPENDIX A

PROVINCE OF MANITOBA
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES BRANCH

DELORAINÉ FLOOD PROTECTION STUDY

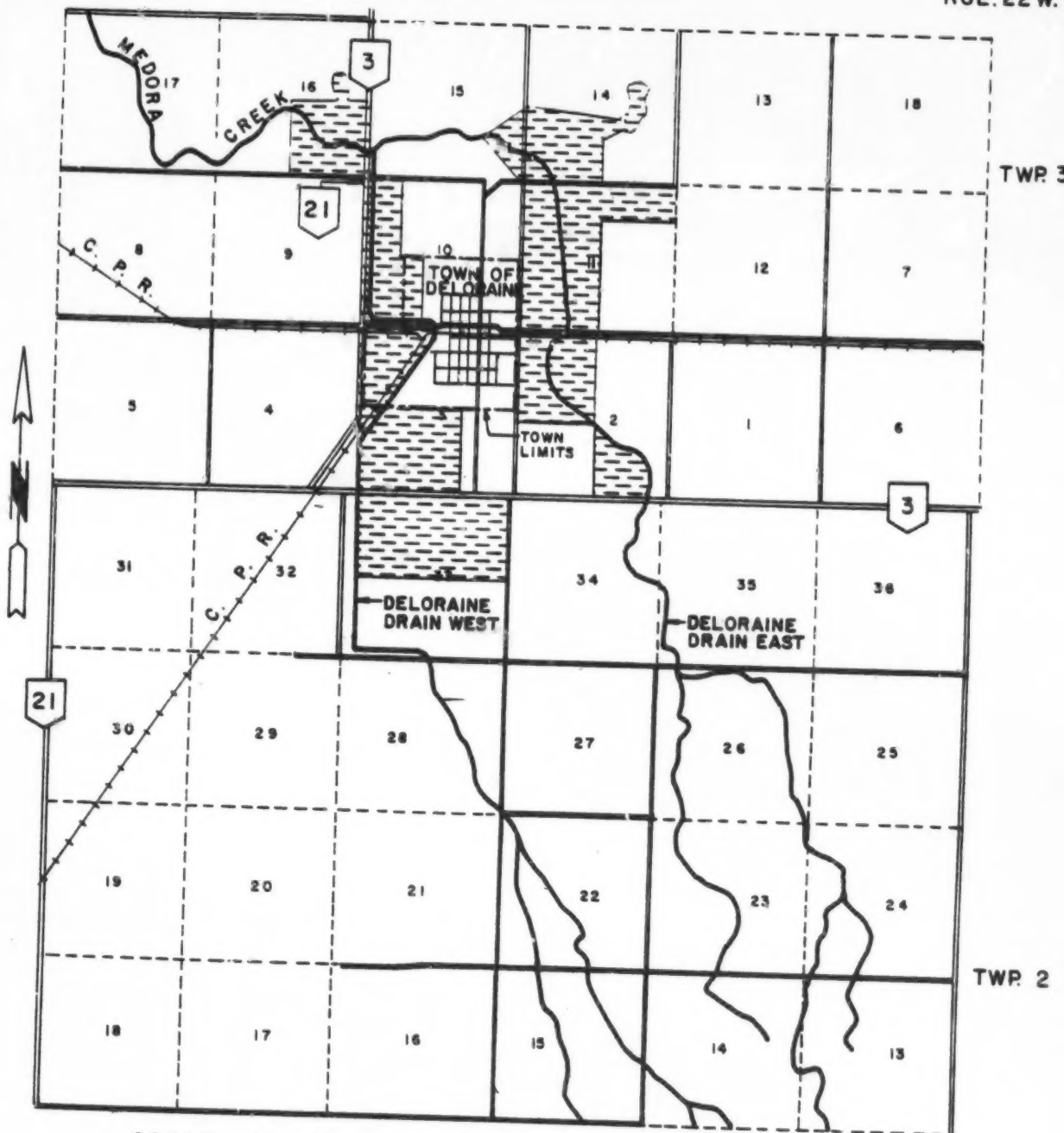
LOCATION PLAN

PREPARED BY: R. N. M. M. AGENT: *[Signature]*

DATE: 81 05 01 SHEET: 01 FILE NO.:

RGE. 23 W.

RGE. 22 W.



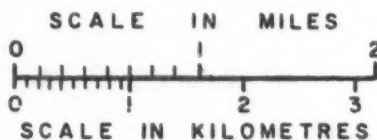
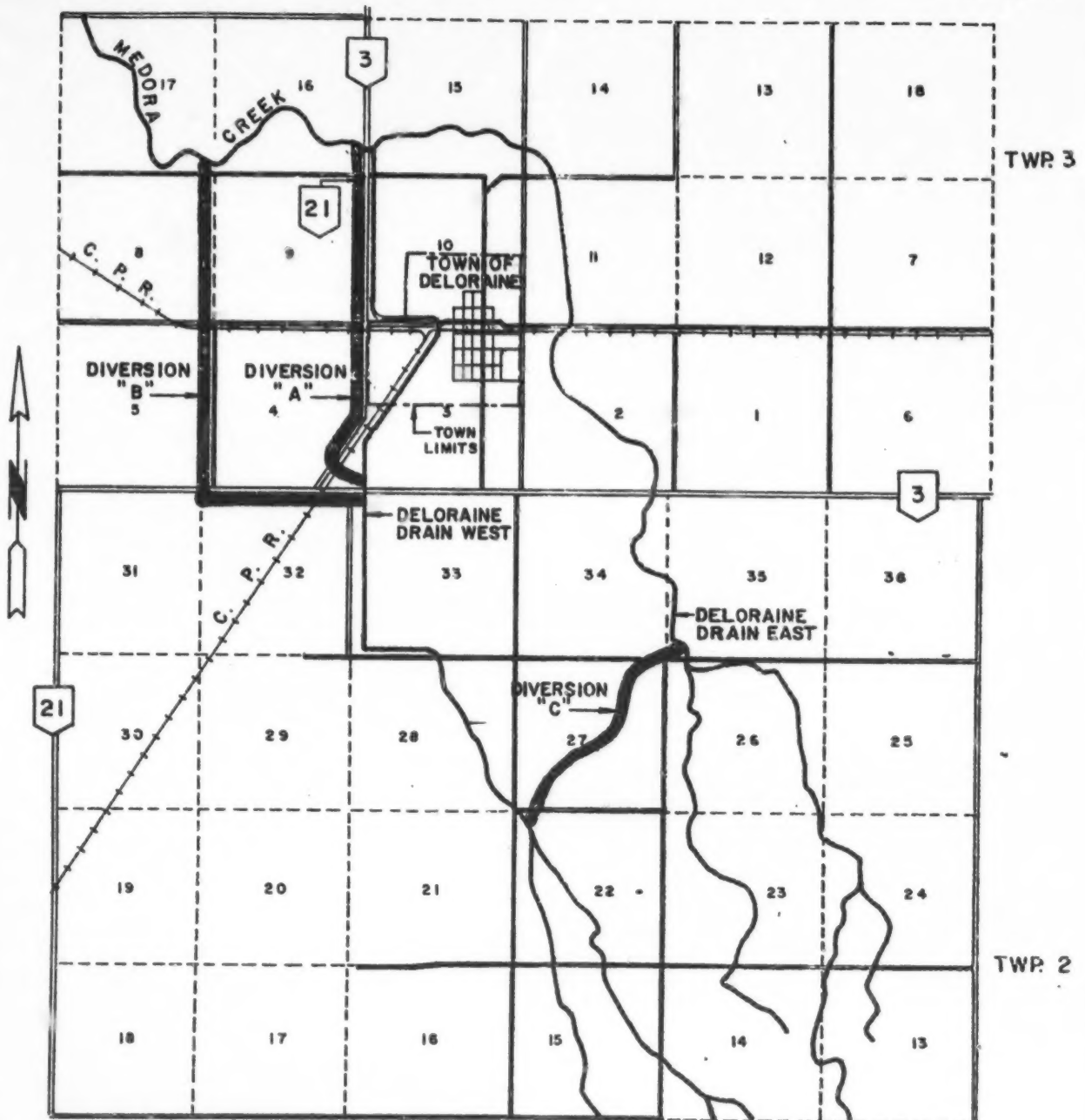
SCALE IN MILES
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SCALE IN KILOMETRES
0 1 2 3

APPENDIX B

PROVINCE OF MANITOBA DEPARTMENT OF NATURAL RESOURCES WATER RESOURCES BRANCH				DELORAINÉ FLOOD PROTECTION STUDY TOWN OF DELORAINÉ FLOODED AREAS			
PREPARED R. H.	DRAWN M. M. CHECKED	SUBMITTED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	SCALE AS SHOWN	DATE 01 03 01	SHEET OF	FILE NO.

RGE. 23 W.

RGE. 22 W.



APPENDIX C

PROVINCE OF MANITOBA
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES BRANCH

DELORAINÉ FLOOD PROTECTION STUDY

LOCATION PLAN
OF
PROPOSED ALTERNATIVE DIVERSIONS

PREPARED
R. H.

DRAWN
M. M.

SUBMITTED

APPROVED

SCALE

AS SHOWN

DATE 81 05 01

SHEET

OF

FILE NO.

PROVINCE OF MANITOBA
DEPARTMENT OF HIGHWAYS AND TRANSPORTATION
DESIGN OFFICE
WINNIPEG, APRIL 1981

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